AN OPEN COMPARATIVE CLINICAL EVALUATION ON "THADIPPU PERUNOI (PSORIASIS)" WITH THE SIDDHA HERBAL FORMULATION "MAHA MANJISHTATHI KASHAYAM" (INT) "CHEMPARUTHI POO ENNAI" (EXT) AND "DEEP RELAXATION TECHNIQUE".

The dissertation Submitted by

Dr. E. NANDHINI B.S.M.S

Registration No.321513103

Under the Guidance of

Prof. Dr. M. MOHAMED MUSTHAFA, M.D(S)

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DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled **An open comparative clinical evaluation on "Thadippu Perunoi (Psoriasis)" with the siddha herbal formulation "Maha Manjishtathi Kashayam" (Int) "Chemparuthi Poo Ennai" (Ext) And "Deep Relaxation Technique"**is a bonafide and genuine research work carried out by me under the guidance of **Prof. Dr. M. MOHAMED MUSTHAFA, M.D (S),** Post Graduate Department of **Sirappu Maruthuvam**, Govt. Siddha Medical College, Arumbakkam, Chennai- 600106 and the dissertation has not formed the basis for the award of any Degree, Diploma, Fellowship or other similar title.

Date: **Signature of the Candidate**

Place: Chennai **Dr. E. NANDHINI**

GOVT. SIDDHA MEDICAL COLLEGE,CHENNAI-600106

CERTIFICATE BY THE GUIDE

This is to certify that the dissertation entitled **An open comparative clinical evaluation on "Thadippu Perunoi (Psoriasis)" with the siddha herbal formulation "Maha Manjishtathi Kashayam" (Int) "Chemparuthi Poo Ennai" (Ext) And "Deep Relaxation Technique"** is submitted to the Tamilnadu Dr.M.G. R. Medical University in partial fulfillment of the requirements for the award of degree of M.D (Siddha) is the bonafide and genuine research work done by **E. NANDHINI** under my supervision and guidance. The dissertation has not formed the basis for the award of any Degree, Diploma, and Associate ship, Fellowship or other similar title.

Date: **Seal & Signature of the Guide**

Place: Chennai **Prof. Dr. M. MOHAMED MUSTHAFA, M. D(S),**

ENDORSEMENT BY THE HOD, PRINCIPAL/HEAD OF THE INSTITUTION

This is to certify that the dissertation entitled **An open comparative clinical evaluation on "Thadippu Perunoi (Psoriasis)" with the siddha herbal formulation "Maha Manjishtathi Kashayam" (Int) "Chemparuthi Poo Ennai" (Ext) And "Deep Relaxation Technique"** is a bonafide work carried out by **E. NANDHINI** during the year 2015-2018 under the guidance of **Prof.Dr.M.MOHAMED MUSTHAFA, M.D (S),** Post Graduate Department of Sirappu Maruthuvam, Govt. Siddha Medical College, Chennai - 600106.

Seal & Signature of the HOD **Seal & Signature of the Principal**

Date: **Date:**

Place: Chennai **Place:**Chennai

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CONTENT

INTRODUCTION

1.INTRODUCTION

Siddha system is the most ancient and divine medical system meant for its uniqueness. According to the tradition it was Shiva who unfolded the knowledge of Siddha system of medicine to his concert Parvati who handed it down to Nandhi devar and he in turn to the 18 siddhars. Therefore, it is called 'Shiva Sampradayam, (tradition of Siva), or 'Siddha Sampradayam. The medicines were prepared by the Siddhars on herbs, metals and minerals. The father of Siddha Medicine is the primordial Guru, Agasthiar.

According to the ancient Siddha texts, a human body is made up of several elements. The elements that form a human body are the earth *(*MANN*),* fire *(*THEE*),* water *(*NEER*),* air *(*VAYU*)* and space *(*AKASAM*).* Siddhars believes that, the changes in the nature environment may directly or indirectly affect the body. So, these factors must also be considered when diagnosis and treatment are given. The principles of treatment are therefore expected to accord to different season and environments.

Additionally, there are three humors or the DOSHAS called the Vata, Pitta and Kapha. Siddha medicine believes that diseases occur when there is a disequilibrium or imbalance in these humors or if their individual harmony is disturbed. The balance can be restored by correcting the underlying dosha by the application of the Siddha medicines.

Siddha system does not consider treatment and prevention separately. The main aim of this system is prevention of disease, as it is well said that "Prevention is better than cure". According to the Siddha system, the individual is a microcosm of the universe. Food is the basic building material of the human body and gets processed into humours, tissues and wastes. The equilibrium of humours is considered as health and its disturbance or imbalance leads to a diseased state; Saint Thiruvalluvar has indicated the same view in his Thirukural,

"மிகினும் குறையினும் நோய்செய்யும் நூலோர்
வளிமுதலா எண்ணிய மூன்று." - குறள் 941 [28]

Plants have been used for medicinal purposes long before prehistoric period. Recently, WHO estimated that 80 percent of people worldwide rely on herbal medicines for some aspect of their primary health care needs. According to WHO, around 21,000 plant species have the potential for being used as medicinal plants. Treatment with medicinal plants is considered very safe as there is no or minimal side effects, they are comparatively safe, eco-friendly and locally available. These remedies are in sync with nature, which is the biggest advantage. Although synthetic drugs exhibit quicker efficacy, there are at present, unsubstantiated opinion of higher incidents of adverse reactions following the use modern drugs when compared with herbal remedies. Traditional medicine has always been considered as an efficient and acceptable option even when modern health facilities are available. As a result of recent advances in biochemistry, immunology, medical botany and pharmacognosy, research findings have established the descriptive capacity, effectiveness and rationality of herbal medicines.

Maha manjisthathi kashayam has water soluble active principle herbs. Hence kashayam is the best way to enjoy the maximum benefits out of the herbs. Water soluble components are readily absorbed by the intestines. The freshly prepared kashayam have medicinal herbs in active mode and bring about fast action. A major benefit of herbal medicine is that they are generally safer than synthetic pharmaceuticals. Herbs taken as a whole, will have compounds in them that buffer their action. This is because plants, being chemically complex living organisms, often have several medicinal actions.

Psoriasis is a chronic, non-infectious skin disease characterized by well-defined slightly raised dry erythematous macules with silvery scales and typical extensor distribution. It is an auto immune disease. The modern treatments include steroid creams, vitamin D3 cream, ultraviolet light and immune system suppressing medications, such as methotrexate.

Majority of patients with moderate-to-severe being subjected to discrimination, humiliation and being stared at in public. Stress is the common trigger for psoriasis flare at the same time psoriasis flare can also cause stress. There are many ways to reduce stress and the impact it has on psoriasis. Yoga is one among them which possess a tremendous effect on stress free life.

Deep relaxation techniques are a great way to help with stress management, it quietness

your mind and releases physical tension in your body. In a state of deep relaxation, your heart beat and breathing slow down, and your body and mind become deeply calm. The technique could be described as a lying down form of meditation that uses the whole body as a focus of awareness. Nearly all spiritual traditions acknowledge the existence of a body of energy that permeates the physical body and is responsible for our health and wellbeing. Yoga nithra also aims to enhance and balance this energy. The aim is to surf the interface between sleeping and waking consciousness. Practicing yoga also improves the vitality and life expectancy.

External treatment for psoriasis often involves topical application of ointments and creams. Emollients reduce the risk of cracking and scaling of dry skin. Chemparuthi poo ennai has ingredients such as coconut oil, chemparuthi petals which moisturizes, and controls inflammation thereby reduce the symptoms of psoriasis.

AIM AND OBJECTIVES

2.AIM AND OBJECTIVES

AIM:

To evaluate the safety and efficacy of Siddha Herbal Drugs **"Maha manjishtathi kashayam" (Internal), "Chemparuthi poo ennai" (External)** & **"Deep relaxation technique"** in management of **Thadippu Perunoi (Psoriasis).**

OBJECTIVES:

PRIMARY OBJECTIVE:

To evaluate the efficacy of the Siddha Herbal Drugs **"Maha manjishtathi kashayam"(Internal), "Chemparuthi poo ennai" (External)** & **"Deep relaxation technique"** in management of **Thadippu Perunoi (Psoriasis).**

SECONDARY OBJECTIVES:

- To study the safety profile of trial drug Maha Manjishtathi Kashayam(Internal).
- To discuss the various literature evidences of Thadippu Perunoi in Siddha Medicine and Psoriasis in modern science.
- To Study the Siddha purification method of raw drugs.
- To get the authentication of the raw drugs.
- To standardize the standard operating procedure.
- To Study the physico- chemical analysis of the selected trial drug.
- To study the acute & sub - acute toxicity of the trial drug Maha Manjishtathi Kashayam according to OECD guidelines.
- To analyze the pharmacological activities of the selected trial drug.
- To estimate the quantity of heavy metals analysis in the trial drug.
- To evaluate the safety of the trial drug Maha Manjishtathi Kashayamin Psoriasis patients before and after treatment.

LITERATURE REVIEW

3. LITERATURE REVIEW

SIDDHA ASPECT OF DISEASE(THADIPPU PERU NOI)[12]

The skin diseases are classified as 18 in siddha system of medicine. These diseases are commonly classified under Kuttam. They are otherwise known as Perunoi, sarma noi, Thol noi. So the term is used for various skin disease like Psoriasis, vitiligo, eczema, Hansen's disease , etc.

DEFINITION OF SKIN DISEASES:

According to the definition in siddha maruthuvam sirappu, Thadippu peru noi is a chronic, non- infectious, recurrent, inflammatory disorder of the skin characterized by reddish, slightly elevated patches covered with slivery scales.

AETIOLOGY:

In the Siddha literature **"Thirumular Vaithiyam"** Said in

"வியாதியுண் மூவாறு விளங்கிய **குட்டங்கேள்**
சுயாதிக் கிரந்தி சுழன் மேகத்தாலாறும்
பயாதி மண்ணுளப் பலவண்டினா லெட்டும்
நியாதிப் புழுநாலாய் நின்றதிக் **குட்டமே**."[29]

3 தொகுதிகளாக பிரிக்கப்பட்டுள்ளது அவையாவன,

- கிரந்தி, மேகம் போன்ற பிணிகளினால் வருபவை - 6
- வண்டு போன்ற உயிரினங்களால் எற்படுபவை - 8
- புழு போன்ற நுண்கிருமிகளால் வருபவை - 4

In the Siddha literatures **"Guru Naadi Nool"** Said in

கிருமியால் வரும் நோய்கள்:[28]

"கிருமியால் வந்ததோடம் பெருக வுண்டு
கேட்கவதின் பிரிவதனைக் கிரம மாக
. . . . . .
தேகமதில் சோகைக்**குட்டங்** கிருமியாலே
துருமிவருஞ் சுரோணிதங் கிருமியாலே
சூட்சமுடன் கிரிசைப்பால் தொழில்செய் வீரே".

அவையாவன:

- பொருமல்
- வாய்வு
- புழுக்கடி
- பவுத்திரம்
- சோகை
- **குட்டம்**
- சுக்கிலப்பிரமேகம்.

கிருமியால் உண்டாகும் குட்டம் வரலாறு

"குட்டமது விடகரப்பான் விடநீர் சூலை
சுரோணிதத்தால் தாதுகெட்டுத் தடிப்புண்டாகும்
மட்டறமே கிருமிசென்று மருவும் போது
வகையாய்க் கிருமியுட விடநீர் சென்று
குட்டமுடன் தேகமெல்லாம் பறக்கும் போது
குழிகுழியாய்க் கிருமியினீக் கொள்ளும் புள்ளி
தட்டறவே கிருமியுட நீரால்வந்த
சகலகுட்டம் விடகரப்பான் சாற்ற லாமே."

- குன்மம், கயநோய், சுரம், பாண்டு, மலடு, பெருவயிறு, விடகரப்பான், விடநீர் சூலை, சுக்கிலநட்டம் இவற்றால் தாதுக்கள் கெட்டுத் தடிப்புண்டாகும்.
- அதில் கிருமியுண்டாய், கிருமியுட விஷநீர் தேகமெல்லாம் பரவி, குழி குழியாய்ப் புள்ளிப்புள்ளியாய்க் கிருமியுட விடநீரால் குட்டம், விடகரப்பான் உற்பத்தியாகும்.

In the Siddha literatures **"THANVANTHIRI VAITHIYAM"** Said in

குட்டரோக நிதானம்[30]

"அறிவின்றி விபரிதஞ் சேராகாரம் புசிக்கலாலும்
துறையன்றி தொடாத தொன்றை தொட்டவைப் புசிக்கலாலும்
. . . . . .

வந்திந்துப் பூருவா சென் மாந்திர பாவத்தாலுஞ்
சந்திக்கக் கற்புமாதர் தங்களைக் கருதலாலும்
தொந்தித்த குட்டரோகந் தொடுக்குமென்றுரைத்தார் முன்னோர்."

- அறிவின்மையால் ஒன்றுக்கொன்று விரோதமான ஆகாரங்களை யொன்று சேர்த்துச் சாப்பிடுதல்.
- காரணமின்றி சாப்பிடக் கூடாதவைகளை சாப்பிடுதல்.
- பெரியார்களை நிந்தனை செய்தல்.
- சிநேகிதர்களைப் பிரித்தல்.
- கற்புள்ள மாதர்களை இச்சிப்பது.
- பூர்வ வினைகளால் குஷ்டம் பிறக்கும்.

In the Siddha literatures "**AGATHIYAR KANMA KANDAM**" Said in

குட்டம் வரலாறு[31]

"சேர்ந்தகுட்ட மோடுகுறை நோய்கள் வந்த
சேதிகள் மலராதவரும்பு கொய்தல்
தாரிந்த சீவசெந்து வதைகள் செய்தல்
தாய் தந்தை மனதுநொந்தது ரோகந்தானே".

- சீவசந்துகளை வதை செய்தல்
- தாய் தந்தை மனம் வருந்தச் செய்தல்

இவைகளினால் குட்டநோய் உண்டாகும் என கூறப்பட்டுள்ளது.

CLASSIFICATION OF KUTTAM:

According to YUGIMUNI Kuttam are 18 types. These are,

"முத்தாகும் குட்டந்தான் **பதினெட் டுக்கும்**
முனியான யூகியான் சொல்லக் கேளாய்
புத்தாகும் புண்டரீகக் குட்டத் தோடு
. . . . . .
துட்டமாஞ் சுவேதகுட்டந் தன்னோ டொக்கச்
சுயம்பான பதினெட்டுக் குட்ட மாச்சே".

அவையாவன:

1. புண்டரிகம்
2. விற்போடகம்
3. பாமம்
4. கஜசர்மம்

5. கரணம்
6. சிகுரம்
7. கிருஷ்ணம்
8. அவுதும்பரம்
9. மண்டலம்
10. அபரிசம்
11. விசர்ச்சிகம்
12. விபாதிகம்
13. கிடீபம்
14. சர்மதலம்
15. **தத்துரு**
16. சித்துமா
17. சதாரு
18. சுவேதம்

In the Siddha literature **"Siddhar Aruvai Maruthuvam"** Said in

குற்றத்தின் அளவாக நோய்எண் [25]

ஏழு

அவையாவன

1. வளிக் குட்டம்
2. அழற் குட்டம்
3. ஐயக் குட்டம்
4. வளிஐயக் குட்டம்
5. வளியழற் குட்டம்
6. அழல் ஐயக் குட்டம்
7. முக்குற்றக் குட்டம்.

1. வளியின் கீழ் : கபால குட்டம்
2. அழலின் கீழ் : அத்திக்காய்க் குட்டம்
3. ஐயத்தின் கீழ் : மண்டலக் குட்டம்

சொறிக் குட்டம்

4. வளியழற் கீழ் : மரை நாக்குக் குட்டம்
5. வளியையத்தின் கீழ் : வெடிப்புக் குட்டம்
6. அழலையத்தின் கீழ் : திமிர்க் குட்டம்
   யானைத்தோல் குட்டம்
   பன்றித்தோல் குட்டம்
   புடைக் குட்டம்
   கூழாங்கற் குட்டம்
7. முக்குற்றத்தின் கீழ் : தடிப்புக் குட்டம்
   போரைக் குட்டம்
   படர்தாமரைக் குட்டம்
   எரிக்கொப்புளக் குட்டம்
   சிரங்குக் குட்டம்
   பிளப்புக் குட்டம்
   காகக் குட்டம்.

T. V. SAMBASIVAM PILLAI Authors classify this disease only under 8 verities[22], They are:

1. Blisters in feet
2. Deformity of generative organs
3. Cutaneous fissures
4. Elephantiasis
5. Ulcers
6. Coppery blotches - lepra maculosa
7. Black leprosy – lepra graecorum
8. White leprosy – lepra mosaic

சாத்தியம் என கூறப்பட்டுள்ள குட்டங்கள்[15]:

யூகிமுனி கூற்றுப்படி - பத்து

அவையாவன

1. விற்போடகம்.
2. பாமம்
3. கசசருமம்

4. கிருட்டிணம்
5. அவுதும்பரம்
6. **தத்துரு**
7. சித்துமா
8. கிடிபம்
9. சதாரு
10. சருமம்.

According to Yugimuni **Thethutru Kuttam (Psoriasis)** is curable.

அசாத்தியம் என கூறப்பட்டுள்ள குட்டங்கள்[15]: எட்டு அவை

1. புண்டரிகம்
2. கரணம்
3. சிகுரம்
4. மண்டலம்
5. அபரிசம்
6. விசர்ச்சிகம்
7. விபாதிகம்
8. சுவேதம்.

தேத்துரு குட்டம்

"சர்மந்தான் **சிவப்பாக வட்டதணிதுச்**
சலவைபோல் வெளுக்குமே தினவுண்டாகும்
கூர்மந்தான் ரோகமது மிகவுண்டாகும்
மயிரெல்லாஞ் சுருண்டுமே உண்டையாகும்
கர்மந்தான் பித்தசே டுமமி குக்கும்
காயந்தான் கதித்துமே திமிருண்டாகும்
தர்மந்தான் சடமெல்லா மூதலாகும்
தாக்கான தேத்திருக் குஷ்டந்தானே."

- தோலில் வட்ட வட்டமாகப் படைகளையுண்டாக்கும்- Coin shaped lesion

- சிறிது வெளுத்தாற்போலக் காணும் - White silvery scales.
- சிவந்து காணும் - Erythematous
- தினவை உண்டாக்கும் – Itching
- மயிர்கள் சுருண்டு திரட்சியாகும் - Curling of hair
- அழலையம் பெருகி உடலைக் கதிக்கச் செய்து திமிரை உண்டாக்கும்.
- உடலை ஊதச் செய்யும்.

In **THETHURU KUTTAM** nowadays said in siddha system of medicine was **THADIPPU PERU NOI (Psoriasis)**

வேறுபெயர்கள்[32]:

- வெண்பரு செதில்நோய்
- செதில் உதிர் நோய்
- காளாயகஞ்ச வாதம்
- காளாஞ்சக வாதம்
- கிடீப குட்டம் (பன்றிதோல் பெருநோய்)
- கஜசருமக குட்டம் (யானைதோல் பெருநோய்)

காளாஞ்சக வாதம்:

"வாதமாமங் கால் கையிற் குரங்கிரண்டும் வகுத்துசந்து
முறுக்கியே உடைந்து நொந்து
நாதமா நடைதானுந் தான் கொடாம
னலிந்துமே முடமாகிக் கரடுகட்டிச்
சேதமாஞ் சடந்தானு மிக வெளுத்துத்
தினவொடு சிரங்கு மாய்ச் சிலேட்டும மாகிக்
காதமா யருசியொடு மயக்கமாகங்
கருதியகா ளாஞ்சகமாம் வாத மாமே[10]"

- வளி நோய் எண்பது வகைகளில் ஒன்றாகும்
- இந்நோயில் கை, கால், தொடை, மூட்டு இவைகளில் பிளப்பது போன்றும், முறுக்குவது போன்றும், குடைவது போன்றும், நொந்து நடக்க வொட்டாமற் செய்யும் – Pain present in all joints
- உடல் மெலிந்து, சந்துகள் தோறும் முடங்கி, கரடு கட்டிக் கொள்ளும் - Restricted movements.
- நடக்கவொட்டமாற்ச் செய்யும் - Difficulty in walking
- உடல் மிக வெளுக்கும் - Aaenemia

- தினவெடுக்கும் - Itching
- சொறி சிரங்குண்டாகும் – Pustule
- உடலில் ஐயங்ககூடி சுவையின்மை, மயக்கம் முதலியனவும் உண்டாக்கும்.

நோய் இயல்[12]:

காளாகஞ்சகப்படை புறத்தோலையும், சளிச்சவ்வையும் பாதிக்கும் இயல்புடையது.

புறக்காரணங்களாலும், அகக்காரணங்களாலும் மிகுந்தும் தனிந்தும் மாறி மாறி சுழற்சி முறையில் ஏற்படும் இயல்புடைய நோய்.

மிகுவதும் குறைவதுமான இயல்புடைய இந்நோய் எறக்குறைய 12 வாரங்கள் தீவிர நிலைக்குட்பட்டுப் பின்னர் படிப்படியாகத் தன்னிலைக்கு வரும் இயல்புடைய நோய்.

நோய் பாதிப்பு[32]:

- மக்கள் தொகையில் சற்றேறக்குறைய 2 முதல் 3 சதவிதத்தினர். இந்நோயால் பாதிக்கப் பட்டிருக்கின்றனர்.
- இந்திய மக்கள் தொகையில் எறக்குறைய 1 முதல் 5 கோடி மக்கள் பாதிப்புக்குள்ளாவதாக மருத்துவச் செய்திகள் கூறுகின்றன.
- இன, சமுதாய, கலாச்சார வேறுபாடின்றி அனைத்து மக்களையும் பாதிக்கும் தன்மை உடையது.
- முன்னேறிய நாடுகளிலும் கூட இதே அளவுக்கு நோயின் தாக்கம் உள்ளதெனப் புள்ளி விவரங்கள் கூறுகின்றன
- 20 லிறுந்து 40 வயதினர் பெரும்பாலும்முதலில் பாதிப்புக்கு உள்ளாகின்றனர்.
- பீடிப்புக்குப் பிறகு குணம் ஆவது குறைவு.
- குணம் கிடைத்தாலும் நீடிப்பதில்லை.
- திரும்பத் திரும்ப வரும்.
- 10 சதவிதத்தினருக்கு திரும்ப 5 ஆண்டுகள் வராமல் இருக்கிறது.
- ஆண்களை விட பெண்கள் அதிகமாக பாதிக்கப்டுகின்றார்கள்.
- பரம்பரை நோயாக மூவரில் ஒருவருக்கு வருக்கின்றது.

- கருப்பமுற்றிருக்கிற காலத்தில் குணமாவதும் குழந்தை பிறந்தபிறகு திரும்பவும் நோய்வருவதும் உண்டு.
- கால் வாசிப் பேருக்கு நகங்களைப் பாதிக்கின்றது.
- இப்பிணிக் கண்டவர்களில் 7 சதவிதத்தினருக்கு கீல்களைப் பற்றிய சந்துவாதசூலையும் உண்டாகின்றது.
- முதல்முறை தாக்கத்திற்க்கு உரிய வயதோ, வேறுக் காராணங்களோ இதுவரை அறியப்படவில்லை.

நோய்க்காரணம்:

- வரும் காரணம் சரியாக தெரியவில்லை.
- ஒரே குடும்பத்தில் உள்ளவர்களுக்கு நோய் ஏற்ப்படுவதற்க்குக் காரணம்
- வம்ச வழி தோற்றமே என அறியலாம்.

அகத்தியர் பரிபூரணம் 400 ல் கன்மநோயைத் தொடர்ந்து வரும்[33] என கூறியுள்ளார்.

"பழவினையால் விஷப்பூச்சி கடித்த தோஷம்
பாதகர்க்கு ஒருநாளும் திர்வ தில்லை. . . . . .
. . . . . .
அடையாளம் விரல்குறுகு மின்னங் கேளே".

நோய் வரும் வழி[32]:

- மரபு சார் நோயாக இந்நோய்க் கூறப்படுகிறது.
- தன்வினை
- பழவினை
- சுற்றுசுழல் பாதிப்பு
- வளி முதலிய தாது மாறுபாடு
- அடிபடுதல்
- வேதியல் சார்ந்த தொழில்
- அறுவை சிகிச்சையின் பின்விளைவு
- பூச்சி மற்றும் இதரப் பிராணிகளால் ஏற்படும் காயங்கள்

- தீப்புண்கள்
- அக்கி
- வெண்படை
- தந்தை தாய் வழியாலும் இந்நோய் வருவதாக கூறப்படுகிறது.

நோயை அதிகப்படுத்தும் காரணிகள்[2]:

- சுனதாபிதம்
- புப்புசப்பிணிகள்
- ஒவ்வாமை
- மனஉளைச்சல்
- கவலை
- அதிர்ச்சி
- காலமாறுபாடுகள்
- பேதைப்பெண்பருவம்
- பேரிளம்பெண்பருவம்
- குழந்தைப்பிறந்தப் பிறகு வரும் என கூறப்பட்டுள்ளது.

நோயை அதிகப்படுத்தும் மருந்துகள்[12]:

- வலிக்குன்மத்திற்குத் தாமிரச்செந்தூரம் கொடுத்தப் போது வலிக்குன்மம் நீங்கி, குணமாகி இருந்த காளாகஞ்சகப்படை தீவிரமடைக்கிறது.
- இளம்பிள்ளைத் தடுப்பு மருந்தான குளோரோகுயின் குருக்களையும், படையையும் உண்டுபண்ணுகிற்து.

நோயின் முற்குறி[32]:

எவ்விதமான முற்குறிகளும் தோன்றுவதில்லை,ஆயினும் திரும்பத் திரும்ப தாக்கக்கூடிய இயல்புள்ள முற்குறியாக சிறு சிறு புள்ளிகள் தோன்றி, அவை பின்னர் விரிவடைந்து பெருகும்.

நோயின் குறிகுணங்கள்[12]:

- தோல் சிவந்து செந்நிறப் பருக்கள் தேகமேங்கும் படைபோல் பரவுதல்.
- தடித்தல்.
- மென்மையும், வெண்மையும், பளபளப்பும் உடைய செதில்களால் மூடப்பட்டிருக்கும்.
- தோல் உரிதல்
- கனத்தல்
- தினவெடுத்தல்
- திடீர் என உடல் வெப்பம் குறைவது போல நடுக்கம்
- செதில்கள்களைச் சொறிய இரத்தக்கசிவு ஏற்ப்படும்
- படை உண்டாம் இடங்களும் படையின் உருவங்களும், அளவும், வடிவமும் வேறுபடுவதுண்டு
- சிறுவர்களில் நீர்துளிகள் போல் உடலிலும் அவயங்களிலும் ஏற்படுவதுண்டு.
- தலையிலும் சிலசமயம் முகத்திலும் குருக்கள் உண்டாகும். நாட்பட்டுவிட்டால் செதில்கள் முழங்கால்களிலும், முழங்கைகளிலும் காணும்.
- சிலருக்கு உள்ளங்கைகளிலும், பாதங்களிலும் தோல் கனத்து வெடித்துச் செதில்கள் தோன்றும்.
- உடல் முழுவதும் பாதிக்கப்பட்டு செதில்கள் அதிக அளவில் உதிர்ந்து சிவந்து காண்பதும் உண்டு.
- நாணயங்கள் போன்ற வடிவத்தைவுடைய படைகள் காணப்படும்.
- கிருமிகளற்ற சீழ்க் கொப்புளங்களும் தோன்றும் படைகள் வட்டங்களாகவும், நீளமாகவும் காட்சியளிப்பதுண்டு.
- பெண்களுக்கு அக்குள், தொடைமடிப்பு, தொப்புள் இவ்விடங்களில் ஏற்ப்பட்டால் நீர்கசிவு எற்படுவதுண்டு.
- சிலநேரம் காய்ச்சல் காணும்.
- நோயுற்றப் பகுதி குறிப்பாகப் பாதங்களின் மூட்டுப் பகுதிகள், மற்றும் தோள்கள், கையின் புறப்பக்கம் ஆகிய இடங்களில் வீக்கம் உண்டாதல்.
- உறக்கம் கெடல்.
- மனஉளைச்சல்.

- அயர்வு
- உணவில் விருப்பமின்மை.
- நோய் முற்றிய நிலையில் வெறுப்பு.
- தனிமையை விரும்புதல்.
- தற்கொலை முயற்சியில் சிலர் இடுபடுவர் உளத்தொடர்பான நிகழ்வுகளும் எற்படும்.

நாடி நடை[34]:

பிணிகளின் முதற் காரணத்தில் தேரையர்:

"வாதமலாது மேனிகெடாது"

தேஜஸ் (தேகத்தின் ஒளி) என்னும் அழகும், வன்மையும் கெடுவதற்கு முக்கியமான முதற்காரணம் வளிக்குற்றமேயாகும்.

வளித் தாதுவும் அதைத் தொடர்ந்து ஐயத் தாதுவும் தன்னிலைக் கெட்டு குறிப்பாகத் தோலுக்குறிய உதானன், தேவதத்தன் எனும் வாயுக்கள் தோலில் பெரும் மாற்றங்களைத் தோற்றுவிக்கின்றன.

ஏழு உடற்கட்டுகளில், முதற்கட்டமாக மெய்கெட்டுப் பின்னர் மற்ற உடற்கட்டுகளும் கேடடையும்.

மெய் நீங்கலாக ஏனைய உடற்கட்டுகள் குறைந்த அளவே கேடடைவதால் இந்நோய் தீவிர நிலைக்கு ஆட்படுவதில்லை.

நோய் மிகு நிலையில் அபானன் மற்றும் வியானன் கேடடையும்.

DIET RESTRICTION (PATTHIYAM)[12]:

1. Fish, crab, prawn are some sea foods should be avoided.
2. Curd, Jaggery, oil, White gram should be avoided.
3. Non vegetarian diet should be avoided.
4. Alcohol beverages should be avoided.
5. Brinjal should be avoided.
6. In severe cases tamarind should be avoided.
7. Dietary taken salt in minimum quantities.

MODERN LITERATURE REVIEW

ANATOMY OF SKIN[1]

The skin is the protective covering of the body, Skin which covers the entire surfaceof the human body. The human skin shows 2 wide variations in structure.

1. Thick skin found in Scalp

Ear lobes

Palms

Soles

2. Thin skin over the rest of the body.

The average thickness of the skin is about 1 to 2 mm. In the sole of the foot, palm of the hand and in the inter scapular region, it is considerably thick measuring about 5 mm. Skin is very thinnest in eyelids and penis measuring about 0.5mm only.

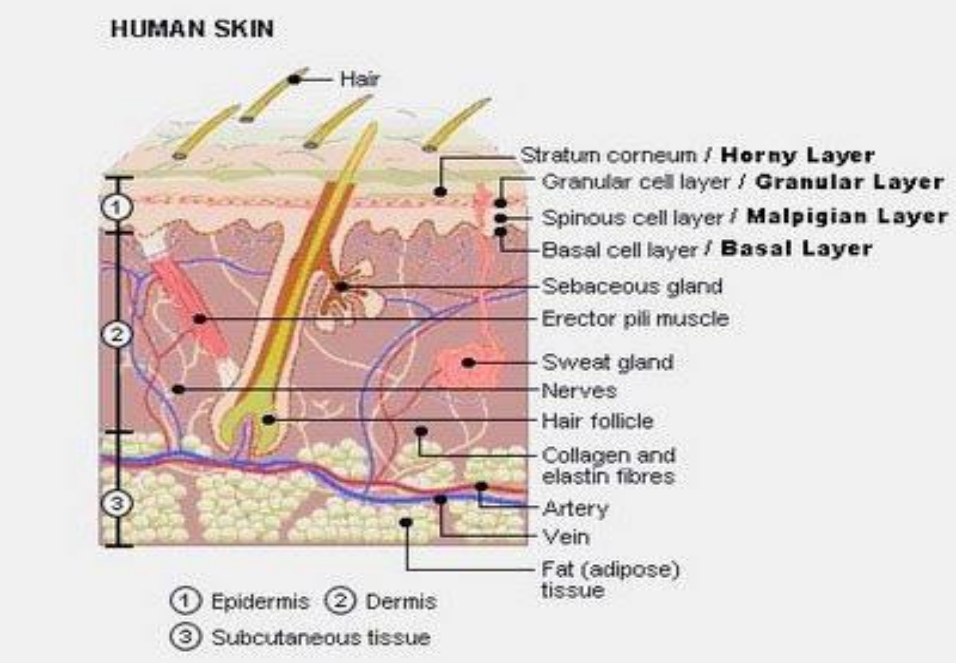
The skin is composed of a

Superficial epithelial layer – The epidermis

Connective tissue layer – The dermis or Corium

Another Connective tissue layer loose in texture – The hypodermis or subcutaneous layer.

Fig :3.1 Human skin



STRUCTURE OF EPIDERMIS:

The epidermis is formed of nonvascular stratified epithelium. The average thickness of the skin is between 0.07 mm to0.12 mm. Certain parts like the soles of the feet and the palms of the hands it isvery thick ranging from 0.8mm to1.4mm.
Squamous epithelium is 10 to 11 cells thick in the palms and soles. Squamous epithelium is 3 to 4 cells over the eyelids. The nutrition is provided to epidermis by the capillaries of dermis.

The epidermis is mainly divided into two main systems,
1. Malpighian system which forms the bulk (Keratinocytes)
2. Pigmentary system which produce pigment (Melanocytes) in addition of four types of cells.

These are
1. Keratinocytes
2. Melanocytes
3. Langerhans cell
4. Intermittent cells

In the epidermis, another unique cell known as Markel cell or Haascheiben or Touch cells here found at the base of epidermal ridges, which are in contact with nerve fibers, they are mostly present in palms, soles, nail beds, oral and genital epithelium, and act as slow touch receptors.

LAYERS OF EPIDERMIS:

Epidermis layer can be made out microscopically in a section of perpendicular to the skin surfaces, the following 5 main layers of the epidermis.

These are
1. Stratum germinatum
2. Stratum malpighii
3. Stratum granulosum
4. Stratum lucidum
5. Stratum corneum.

SRATUM GERMINATUM:

This is the deepest potion of the epidermis and it is composed of columnar cells placed perpendicular to the skin surface, it is also known as basal cell layer. The whole of the epidermis germinates from this stratum hence the name “Stratum Germinatum” Any trauma to this layer would result in scarring, trauma above the level of this layer heals without scarring. Melanoblasts or melanocytes are found in this layer. Stratum Germinatum contain granules of pigment called melanin.

STRATUM SPINOSUM:

It is also known as stratum malpighii or the prickle cell layer. It issuperficial to the basal cell layer. It is composed of several layers of polyhedral cells connected to each other by intercellular bridges. Desmosomes present in this layer only. Half size desmosomes occur on the under surface on the under surfaceof the basal cells, which play an important part in the anchoring the epidermisand dermis. All keratinocytes adhere together by desmosomes.

STRATUM GRANULOSUM:

It is superficial to the stratum malpighii. It is composed of flat, fusiform cells which are one to three layers thick, the. Cells contain irregular granules of keratohyalin and lysosomal enzymes and cystine richproteins. Lamellar granules also known as odland bodies. These odland bodies take part in the waterproof barrier function of the epidermal permeability.

STRATUM LUCIDUM:

Superficial to the stratum granulosum. It is pale, wavy looking layer known as stratum iucidum. It is made up of many layers of flattened epithelial cells. This layer contains refractile droplets of eleidin.

STRATUM CORNEUM:

This is the most superficial layer, the outer surface of which is exposed to the atmosphere. It is also known as horny layer. It is outer most layers and consists of dead cells, which are called as corneocytes. It consists of many layers of nonnucleated, flattened, cornfield cells. It is this layer which becomes thicker with the application of intermittent mechanical pressure. This layer is thickest in the palms of

the hands and the soles of the feet, but thinnest on the outer surface of the lips, on the glans penis and the eyes.

DENDRITIC CELLS OF EPIDERMIS:

These are melanocytes, Langerhans cells, and indeterminate cells. The melanocytes are the pigment producing cells and are derived in foetal life from neural crest. The cells of langherhans are found about the middle of epidermis. The junction of epidermis and dermis is formed by basement membrane(Basallamina).

DERMIS: (CUTIS VERA OR CORIUM)

Dermis is profusely supplied with blood vessels, Thickness of dermis is 1 to 3mm, it is made up of dense collagen fibers and fibroblasts. The collagen fibers contain the enzyme collagenase which is responsible for wound healing.

Dermis is made up of 2 layer, these are

1. Superficial papillary layer
2. Deeper reticular layer

1. SUPERFICIAL PAPILLARY LAYER:

The layer projects in to the epidermis, it contains blood vessels, lymphatics and nerve fibers. Dermal papillae are finger like projections arising from the superficial papillary dermis.

2. DEEPER RETICULAR LAYER:

It is made up of reticular and elastic fibers. It is found around the hair, sweat glands and sebaceous glands.It also contain mast cells, Nerve ending, lymphatics and fibroblasts.

APPENDAGES OF THE SKIN:

The appendages of the skin are five these are,

1. Sweat gland
2. Sebaceous gland
3. Hair
4. Arrector pili muscle
5. Nails.

1. SWEAT GLAND:

These are 2 types

i. Eccrine gland

ii. Apocrine gland

i. ECCRINE GLAND:

They are the ordinary, small sized 0.3 mm to 0.4 mm. Sweat glands are distributed all over the skin except on the beds of nail, margins of lips and the glans penis. Over 3 million sweat gland presents at birth.

ii. APOCRINE GLAND:

Glandular portion is very large and may measure 3 mm to 5 mm in diameter. They occur in the axilla, areola and nipples of breasts, umbilicus, around the anus and the genitalia. They are specialized sweat glands, and their secretion is odoriferous with secondary sexual significance.

2. SEBACEOUS GLAND:

They are scattered all over the integument in association with the hair follicles. They are absent from the hairless portions of the body like the palms of the hands, the soles of the feet. The ducts of the sebaceous glands are lined by stratified squamous epithelium which is continuous with the external sheath of the hair, and with the malpighian layer of epidermis.

3. HAIR:

Hair is fund on almost every part of the body surface except on the palms, soles, the dorsal surface of the terminal phalanges, the inner surface of the labia, the inner surface of the prepuce and the glans penis. Hairs differ in length, thickness and colour in different parts of the body and in different races. There are three types of hair, long, short, thick bristles. Hair grows about 1-2 cm per month. Hair follicle and its hair can be anatomically divided in to 3 segments

- Infundibulam
- Isthumus
- Inferior

4. ARRECTOR PILI:

Arrector pili muscles are the small bundles of plain muscles fibers, which is extend from the connective tissue sheath of the hair follicles to the epidermodermal junction. When these contracts under the effect of cold or emotions. They move the hair into a more vertical portion is called appearance of "ghoose flesh".

5. NAILS:

These are semi transparent, plate like horny structure, covering the dorsal surfaces of the distal phalanges of the fingers and toes. Nail parts are :

- Root
- Nail plate
- Nail bed
- Lunula
- Lateral and posterior nail fold

The blood supply of the skin originates from the large number of arteries forming anastomosis in the deepest part of the dermis. From the single vessels run upwards and form a second network in the upper dermis. Finally, terminal arterioles ascend in to the papillae ending in capillary loops, which drain into connective venules. The blood is returned to the large veins in the subcutaneous tissues.

LYMPHATICS OF THE SKIN :

The skin contains a rich network of lymphatics which drains in to a larger vessel in the hypodermis.

NERVE SUPPLY OF SKIN :

The nerve supply of the skin consists of a motor sympathetic portion derived from the sympathetic ganglia. Sensory spinal portion arising from the dorsal root ganglia.

PHYSIOLOGY OF SKIN:

The skin performs a multiple of functions, though the primary function of skin is the protection of organs, it has many other important functions.

These are

1. Protective function
2. Sensory function
3. Storage function
4. Synthetic function
5. Regulation of body temperature
6. Regulation of water and electrolyte balance
7. Excretory function
8. Absorptive function
9. Secretary function
10. Gaseous exchange

1. PROTECTIVE FUNCTION:

Skin forms the covering of all organs of the body and protects these organs from the following factors:

- Bacteria and toxic substances
- Mechanical flow
- Ultraviolet rays

2. SENSORY FUNCTION:

Skin is considered as the largest sense organs in the body. It has many nerve endings, which form the specialized cutaneous receptors. These receptors are stimulated by the sensations of touch, pain, pressure or temperature sensation and convey these sensations to the brain via afferent nerves.

3. STORAGE FUNCTION:

Skin stores fat, waters, chlorides and sugar. It can also store blood by the dilatation of the cutaneous blood vessels.

4. SYNTHETIC FUNCTION:

Vitamin D3 is synthesized in skin by the action of ultraviolet rays on cholesterol.

5. REGULATION OF BODY TEMPERATURE:

Skin plays an important role in the regulation of body temperature. Excess heat is lost from body through skin by radiation, conduction and evaporation.

6. REGULATION OF WATER AND ELECTROLYTE BALANCE:

Skin regulates water balance and electrolyte balance by excreting water and salts through sweat.

7. EXCRETORY FUNCTION:

Skin can excrete small quantities of waste materials like urea, salts and fatty substances.

8. ABSORPTIVE FUNCTION:

Skin can absorb the fat soluble substances and some ointments.

9. SECRETORY FUNCTION:

Skin regulates sweat through sweat glands and sebum through sebaceous glands. Sebum keeps the skin smooth and moist.

10. GASEOUS EXCHANGE:

A small amount of gaseous exchange through the skin.

PSORIASIS

DEFINITION:

The word psoriasis is derived from the Greek word “PSORA” meaning “ITCH” or“RASH”. The name psoriasis was given by the Viennese dermatologist Von Hebra.

Psoriasis is a common, non-contagious and chronic skin disease characterized by well defined slightly raised, dry erythematous macules with silvery Scales, and typical extensor distribution.It commonly causes red scaly patches to appear on the skin. The scaly patches caused by psoriasis, called plaques, are areas of inflammation

and excessive skin production. Skin rapidly accumulates at these sites and takes a silvery-white appearance. Plaques frequently occur on the skin of the elbows and knees, but can affect any area including the scalp and genitals.

Psoriasis is an inflammatory skin disease in which skin cells replicate at an extremely rapid rate. New skin cells are produced about eight times faster than normal--over several days instead of a month--but the rate at which old cells slough off is unchanged. This causes cells to build up on the skin's surface, forming thick patches, or plaques, of red sores (lesions) covered with flaky, silvery-white dead skin cells (scales).

Fig :3.2, Psoriasis Image

PREVALANCE:[2]

1. It affects 0.6%-4.8% of people worldwide.
2. Men and women are equally affected.
3. It is pandemic in temperate climate. First peak of onset between 20-30 yrs.
4. Second peak of onset between 50-60 yrs.
5. 1,50,000-2,60,000 new cases of psoriasis are diagnosed each year.
6. About 400 people die from complications caused by psoriasis every year.
7. About 11% patients have psoriatic arthritis.
8. Plaque type is most common in 80% of psoriasis patients.

AETIOLOGY:

1. The exact cause is unknown- Autoimmune Disease
2. Stress
3. Hormonal imbalance
4. Septic focus
5. Allergy
6. Anxiety states
7. Lowered response of the cyclic AMP system to prostaglandin E1 in epidermis
8. Mental trauma
9. Fever
10. Digestive upsets
11. Physical injury:

Scratches

Surgical incisions and injuries

12. Infection:

ß - Hemolytic streptococcal infection- precipitates guttatelesions.

HIV infection-Explosive psoriasis.

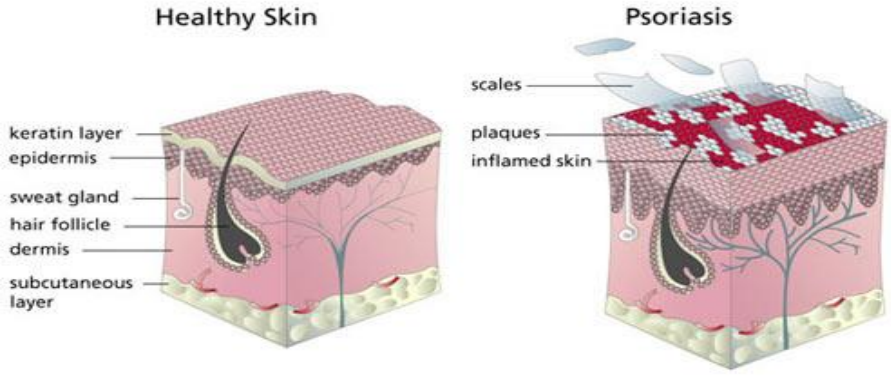
13. Herido familial and Genetic factors:

Increased in familial cases

Increased association of HLA- CW6 20 times increased risk with early onset of psoriasis

PATHOGENESIS OF PSORIASIS:

Fig no:3.3



Psoriasis appears to be largely a disorder of keratinization

The basic defect is rapid replacement of epidermis in psoriatic lesion.3 to 4days instead of 28 days in normal skin.

There are marked vascular changes in upper dermis in the form of Recently the presence of abnormal neural cells has been demonstrated in Psoriatic plaques. Psoriasis was long considered either a disorder of keratinocytes growth or a chronic inflammation.

Advancement in immunologic techniques and in genetic analyses has resulted in a reappraisal of the pathophysiology involved.

Psoriasis consider as an organ specific autoimmune disease that is triggered by an activated cellular immune system and it similar to other immune mediated disease.The definition of autoimmune disease as "a clinical syndrome caused by the activation of T cells and B cells, or both, in the absence of an ongoing infection or other discernable cause".

Pathogenesis of psoriasis still poses a challenge to the scientific community to once and for all, establish how and why it occurs and consequently to develop the magic drug to treat it. Psoriasis is an immunological disease, characterized by interplay of

- Immunological factors.
- Cellular components.
- Signaling molecules.
- Biochemical changes.
- Histological changes.

These are plays major role in pathogenesis.

I.IMMUNOLOGICAL F ACTORS IN PSORIASIS:[10]

Both innate or acquired immune changes are thought be responsible for the development of psoriatic plaques different types of helper T subsets, dendritic cells, plasmacytoid dendritic cells as well as Langerhans cells have been found to play a role in psoriasis. T cells plays important role in psoriasis autoimmunity as a major factor in pathogenesis. The presence of T cells in the inflammatory infiltrate in psoriatic plaque obviously Indicated in immune mediated or an autoimmune basis for the Pathogenesis of psoriasis.

II.CELLULAR COMPONENTS IN PATHOGENESIS OF PSORIASIS:

Cellular components are:

a) T cells

b) Keratinocytes

c) Langerhans

A. T CELLS:

T cells play a key role, with the epidermal T cells being CD8+ & Dermal cells being CD4+.These cells include memory T cells, natural killer cells T cells& Th17& Th22. Th17& Th22 cells which are subsets of CD4+ cells are now considered important in pathogenesis of the psoriatic plaque. They are stimulated by IL-23 & respectively produce IL-17& IL-22 which mediate dermal inflammation and epidermal hyperplasia.

B. KERATINOCYTES:

Keratinocytes cells express transcription factor STAT- 3, which may be pathogenic.

C. LANGERHANS CELLS:

Langherhans cellssecrete cytokines, which are mitogenic and chemotatic.

III.SIGNALLING MOLECULES IN PATHOGENESIS OF PSORIASIS:

Include cytokines growth factors like interleukins, Chemokines, Interferon's and their respective receptors. Characterized by up regulation of Th1 cytokines and reduction of anti inflammatory cytokines IL-10.Other important molecules include TNF-a, IL-15, IL-17, IL-22 and IL-23.

IV.BIOCHEMICAL PSORIASIS:

Cyclic nucleotide increased levels in cGMP or decreased levels of Arachidonic acid level is increased and it metabolites.

Polyamines also increased in levels.

PROTEINASE: increased in levels of plasminogen activator and their inhibitors. Calmodulin also increased in levels.

V.HISTOLOGICALPSORIASISCHANGES IN PATHOGENESIS

Epidermal changes is increased epidermal proliferation in two ways, One is increased growth fraction from normal of 30 to 100% in psoriasis.2nd is shortened epidermal turn over time from normal of 60 to10 days in psoriasis.Important changes seen in dermal layer.Include dilated and tortuous capillary loops and proliferation of fibroblasts.Secondary lichenification present Scalp is involved almost all casesNo matting of hair

MOST COMMON SITES AREAS COMMONLY AFFECTED:

- Scalp
- Back of elbows
- Front of knees and legs
- Lower part of the back of the trunk

MAY ALSO BE AFFECTED:

- Nail
- Sole
- Palm

RARELY AFFECTED:

Mucus membrane.

CLINICAL FEATURS OF PSORIASIS:

- Typical distribution is extensor
- Lesions are bilaterally symmetrical
- Typical coin shaped lesion
- Big plaques of the size of palm of the hand
- The lesions are slightly raised above the surface of skin
- Absence of itching
- But itching present in tropical countries
- Slight or moderate purities present
- Secondary psychogenic stress present

IMPORTANT SIGNS OF PSORIASIS:

1. Candle greeze sign.
2. Auspitz sign.
3. Koebner's phenomenon.

1. CANDLE GREEZE SIGN (Tache de bouge) :

Psoriatic lesion is scratched with the point of a dissecting forceps a candle greeze like scale can be repeatedly produced even from the non-scaling lesions this is called candle greeze sign (Tache de bouge)

2. AUSPITZ SIGN:

The complete removal of scale produces pin point bleeding. There are 3 steps to this test:

STEP 1: Gently scrape lesion with a glass slide. This accentuates the silvery scales (GRATTAGE TEST POSITIVE) scrape off all the scales.

STEP 2: As you continue to scrape the lesion, a glistening, white adherent membrane (BERKLEY'S MEMBRANE) appears.

STEP 3: On removing the membrane, punctuate bleeding points become visible, this is positive AUSPITZ SIGN.

3. KOBNER'S PHENOMENON:

Psoriatic lesions may develop along the scratch lines in the active phase this is called Koebner's phenomenon.

TYPES OF PSORIASIS :

- ❖ Plaque Psoriasis
- ❖ Nail Psoriasis
- ❖ Guttate Psoriasis
- ❖ Inverse Psoriasis
- ❖ Pustular Psoriasis
- ❖ Erythrodermic Psoriasis
- ❖ Psoriatic Arthritis

PLAQUE PSORIASIS:

The most common form, palque psoriasis causes dry, raised, red skin lesions(plaque) covered with silvery scales. The plaques might be few or itchy or painful and there may be few or many. They can occur anywhere on your body, including your genitals and the soft tissue your mouth.

Fig :3.4 , Plaque psoriasis

NAIL PSORIASIS:

Psoriasis can affect fingernails and toenails, causing pitting, abnormal nail growth and discoloration. Psoriatic nails might loosen and separate from the nail bed. Severe cases may causes the nail to crumble.

Fig no:3.5, Nail Psoriasis

GUTTATE PSORIASIS:

This type primarily affects young adults and children. Its usually triggered by a bacterial infection such as strep throat. Its marked by small, water-drop-shaped, scaling lesions on your trunk, arms, leg and scalp. You may have a single outbreak that goes away on its own, or you may have repeated episodes.

Fig no:3.7, Guttae Psoriasis

INVERSE PSORIASIS:

This mainly affects the skin in the armpits, in the groin, under the breasts and around the genitals. Inverse psoriasis causes smooth patches of red, inflamed skin that worsen with friction and sweating. Fungal infection may trigger this type of psoriasis.

Fig no:3.8, Inverse Psoriasis

PUSTULAR PSORIASIS:

This uncommon form of psoriasis can occur in wide spread patches(generalized pustular psoriasis) or in smaller areas on your hands, feet or fingertips. It generally develops quickly,with pus-filled blisters appearing just hours after your skin becomes red and tender. The blisters may come and go frequently.Generalized pustular psoriasis can also cause fever, chills, severe itching and diarrhea.

Fig no:3.9,Pustular Poriasis

ERYTHRODERMIC PSORIASIS:

The least common type of psoriasis, erythrodermic psoriasis can cover your entire body with a red, peeling rash that can itch or burn intensely.

Fig no:3.10, Erythrodermic Psoriasis

PSORIATIC ARTHRITIS:

In addition to inflamed, scaly skin, psoriatic arthritis causes swollen, painful joints that are typical of arthritis. Sometimes the joint symptoms are the first or only

manifestation of psoriasis or at times only nail changes are seen. Symptoms range from mild to severe and psoriatic arthritis can affects any joint. Although the disease usually is not as crippling as other forms of arthritis, it can cause stiffness and progressive joint damage that in the most serious cases may lead to permanent deformity.

FIG NO:3.11, Psoriatic Arthritis

COMPLICATIONS:

Psoriatic arthritis:

This complication of psoriasis can cause joint damage and a loss of function in some joints, which can be debilitating.

Eye conditions:

Certain eye disorders-such as conjunctivitis, blepharitis and uveitis-are more common in people with psoriasis.

Obesity:

People with psoriasis especially those with more severe disease, are more likely to be obese. It's not clear that these diseases are linked, however. The inflammation linked to obesity may play a role in the development of psoriasis. Or it may be that people with psoriasis are more likely to gain weight, possibly because they are less active because of psoriasis.

Type 2 diabetes:

The risk of type 2 diabetes raises in people with psoriasis. The more severe the psoriasis, the greater the likelihood of type two diabetes.

High blood pressure:

The odds of having high blood pressure are higher for people with psoriasis.

Cardiovascular disease:

For people with psoriasis, the risk of cardiovascular disease is twice as high as it is for those without the disease. Psoriasis and some treatments also increase the risk of irregular heartbeat, stroke, high cholesterol and atherosclerosis.

Metabolic syndrome:

This cluster of conditions-including high blood pressure, elevated insulin levels and abnormal cholesterol levels-increases your risk of heart disease.

Other autoimmune diseases:

Celiac disease, sclerosis and the inflammatory bowel disease called crohn's disease are more likely to strike people with psoriasis.

Parkinson's disease:

This chronic neurological condion in more likely to occur in people with psoriasis.

Kidney disease:

Moderate to severe psoriasis has been linked to a higher risk of kidney disease.

Emotional problems:

Psoriasis can also affect your quality of life. Psoriasis is associated with low self-esteem and depressions. You may also withdraw socially.

DIFFERENTIAL DIAGNOSIS OF PSORIASIS:

1.ECZEMA

Distribution: Face/ Flexures

Morphology: poorly defined erythema and scaling lichenification.

2. SEBORRHOEIC DERMATITIS

Scalp, axilla, sterna Scalp patches are diffuse, region ill-defined and moist, hair is matted with crust.

3.PITYRIASIS ROSEA

"Fire tree pattern" on Well-defined erythematous torso papules and plaques with scales.

4.DRUG ERUPTION

Wide spread, Maculopapular, erythematous scaly areas which merge and are

followed by exfoliation.

5.PITYRIASIS VERSICOLOR

Upper torso and Hypo and hyper pigmented scaly patches upper shoulders

6.LICHEN PLANUS

Distal limbs, Shiny, flatopped violaceous especially wrists and papules with Wickham's lower back striae.

7.TINEA CORPORIS

Asymmetrical, often Scalyplaques which expand isolated, lesions red scaly with central healing.

LAB INVESTIGATION OF PSORIASIS :

Skin biopsy shows the following as

EPIDERMAL CHANGES:

- Parakeratosis
- Loss of granular layer and regular acanthosis
- Supra papillary thickening
- Collection of polymorphs in the epidermis to form spongiform pustuleof kogoj and Munro's micro abscess seen in epidermis.

DERMAL CHANGES:

- Dilatation and tortuosity of capillary loops in the dermal papillae
- Lymphocytic infiltrate in the upper dermis is seen.

HISTOLOGICAL CHANGES:

- Thinning of supra papillary portion of stratum malpinghii
- Elongation of ridges
- Oedema and clubbing of papillae seen in histological study.

HISTOCHEMICAL CHANGES:

Histochemical studies have revealed an increase in both oxidative and anaerobic metabolism with increased pentose, glycon, purines, sulphydral groups,

soluble proteins increased in level. Decreased in activity of dipeptidases. It has been discovered that apparently normal skin of both the psoriatics and their relations show these changes in miniature is called latent psoriasis.

RADIOLOGICAL CHANGES:

Simultaneous presence of ankylosis, periosteal new bone formation, erosions and osteolytis are strongly suggestive of psoriatic arthritis.

TREATMENT OF PSORIASIS PATIENTS :

Depending on the type of psoriasis, various therapeutic options are available

- Topical agents like liquid paraffin, petroleum gel, vegetable oils etc.
- Systemic agents like Methotrexate, Acitretin, and Cyclosporine.
- Corticosteroids mostly in cream base.
- Photochemotherphy and phototherapy in PUVA methods.
- Biological response modifiers used in treatment of psoriasis.

DIET FOR PSORIASIS PATIENTS:

TO TAKE:

1. All green leafy vegetables.
2. Low consumption of animal fats and the quantity of food.
3. High protein diet
4. Fish and sea foods
5. Carrot
6. Tomatoes
7. Grains.

TO AVOID:

1. Oil foods.
2. High fat diet
3. Alcohol
4. Junk foods
5. Red meat
6. Dairy products
7. Night shade vegetables

8. Citrus fruits
9. Gluten protein in diet
10. Condiments.

PROGNOSIS:

A permanent cure is not yet known individual attacks can, almost always controlled satisfactorily disease non-infectious the disease does not leave scar Flexural, erythrodermic and pustular psoriasis take longer to heal than the typical variety the palmar and nail lesions are rather resistant to treatment. Patient suffer from the disease on and off throughout their lives. Complications in psoriasis are infrequent.

MANAGEMENT:

The general health of the patient should be maintained. The patient's life should be regulated so that no undue stress affects either body (or) mind. A moderate, warm climate, frequent sunbaths before the onset of the winter, and visits to Sulphur springs, all of which are useful in bringing down the relapse rate. Natural Sulphur baths should be taken during the holidays, especially in the winter season.

TRIAL DRUG REVIEW

MANJITTI:[4]

GENERAL PROPERTIES OF MANJITTI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Dicotyledons
SUBCLASS	Eudicots
ORDER	Gentianales
FAMILY	Rubiaceae
GENUS	*Rubia*
SPECIES	*R.cordifolia*
BOTANICAL NAME	*Rubia cordifolia*
ENGLISH NAME	Indian madder
CHEMICAL CONSTITUENT	purpurin (trihydroxy anthraquinone), munjistin (xanthopurpurin-2-carboxylic acid), peudopurpurin (purpurin-3-carboxylic acid) and free alizarin and glucoside.
PART USED	Root bark
ACTION	Anti-oxidant[17], Immunomodulator, Anti-psoriatic agent.
SUVAI-THANMAI-PIRIVU	Karppu and kaipu – Veppam – Karppu
USES	Psoriasis, Kustam (Skin disease), Herpes virus (Akki), Hemorrhoids.

2. KADUKAI THOL

கடுக்காய்தோல் பொதுகுணம்:

"தாடை கழுத்தக்கி தாலு குறியிவிடப்
பீடை சிலிபதமுற் பேதிமுடம் ஆடையெட்டாத்
தூலமிடி புண்வாதசோணி காமாலை யிரண்
டால மிடிபோம் வரிக்காயால்"

GENERAL PROPERTIES OFKADUKAI THOL:

KINGDOM	Plantae
DIVISION	Angiosperm
CLASS	Eudicots
SUBCLASS	Rosids
ORDER	Myrtales
FAMILY	Combretaceae
GENUS	*Terminalia*
SPECIES	*T.chebula*
BOTANICAL NAME	*Terminalia chebula*
ENGLISH NAME	Ink nut
CHEMICAL CONSTITUENT	Gallic acid, Chebulagic acid, Chebulinic acid, Tri terpenoid glycoside.
PART USED	Fruit
ACTION	Astringent, Anti-oxidant, Blood purifier, Anti-fungal, Immunomodulator[18].
SUVAI-THANMAI-PIRIVU	Thuvarppu, inippu, pulippu, karppu, Kaippu – Thatpam – Inippu
USES	Chronic ulceration, Ulcerated wounds.

3.THANDRIKAI

"சிலந்தி விடம்காமியப்புண் சீழான மேகங்
கலந்துவரும் வாதபித்தங் காலோட லர்ந்துடலில்
ஊன்றிக்காய் வெப்ப முதிரபித்துங் கரக்கும்
தான்றி கையிலெடுத்தால்"

GENERAL PROPERTIES OF THANDRIKAI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Eudicot
SUBCLASS	Rosids
ORDER	Myrtales
FAMILY	Combretaceae
GENUS	*Terminalia*
SPECIES	*T.bellarica*
BOTANICAL NAME	*Terminalia bellarica*
ENGLISH NAME	Indian Myrobalan
PARTS USED	Leaf, fruit and seed.
CHEMICAL CONSTITUENT	Beta sistosterol, Gallic acid, Ellagic acid.
ACTION	Astrigent, Immunomodulator[16].
SUVAI- THANMAI- PIRIVU	Thuvarppu – Veppam – Inippu
USES	This herb is beneficial for skin disease and premature growing of hair .

4.NELLIMULLI:

ஆகவனலஞ்சசி அசிர்க்கென் புருக்கி கண்ணோய்
தாகமுதிர வித்தந் தாதுநீஷ்டம் மேகனத்தின்
இல்லிமுள்ளி போலருகல் எண்காமியங்கல்
நெல்லிமுள்ளி யாற்போ நினை "

GENERAL PROPERTIES OF NELLIMULLI:

KINGDOM	Plantae
DIVISION	Angiosperm
CLASS	Eudicots
SUBCLASS	Rosids
ORDER	Malpighiales
FAMILY	Phyllanthaceae
GENUS	*Phyllanthus*
SPECIES	*P.emblica*
BOTANICAL NAME	*Phyllanthus emblica*
ENGLISH NAME	Indian Gooseberry
PARTS USED	Leaf, flower, Stem bark, Root, Fruit, Seed.
CHEMICAL CONSTITUENT	Emblicanin A & B, Aspartic acid.
ACTION	Anti-oxidant[19], Anti-viral.
SUVAI- THANMAI-PIRIVU	Pulippu, Thuvarppu, Inippu – Thatppam – Inippu
USES	Best among rejuvenating herbs. It relieves cough and skin disease. Its fruit juice mixed with honey provides strength and immunity.

5. KADUGUROHINI:

கடுகரோகணி பொதுகுணம்:

"மாந்தசுர மையம் வாயுகரப் பானாமஞ்
சேர்ந்த மலக்கட்டு திரிதோடம் போந்தப்பொட்டுப்
புண்வயிறுநோயி வைப்போம் பொற்க்கொடியே பேதியுண்டாம்
தண் கடுகுரோகிணிக்குத் தேர்"

GENERAL PROPERTIES OF KADUGUROHINI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Eudicots
SUBCLASS	Asterids
ORDER	Lamiales
FAMILY	Plantaginaceae
GENUS	*Picrorhiza*
SPECIES	*P.scrophuleriflora*
BOTANICAL NAME	*Picrorhiza scrophuleriflora*
ENGLISH NAME	Kutki
PARTS USED	Root
CHEMICAL CONSTITUENT	D-mannitol, Kutkiol, Kutkisterol, Picroside.
ACTION	Anthelmintic,Immunomodulator[15], Stomachic.
SUVAI- THANMAI-PIRIVU	Kaippu, Karppu – Veppam – Karppu
USES	It acts as a laxative. It is used for fever, liver disorder and skin disease.

6.VASAMBU:

வசம்பு பொதுகுணம்:

"பாம்பா திநஞ்சற் புதப்புண் வலிவிடபாகங் குன்மம்
சூம்பா ரிரத்தபித்தம் முகநாற்றம் வன்சூலை சன்னி
வீம்பா ம்பைகாசம்பீலிகஞ்சிலிபதம்வீறிருமல்
தாம்பா ங்கிருமியிவையேகுமாசிவசம்பினையே"

GENERAL PROPERTIES OF VASAMBU:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Monocots
ORDER	Acorales
FAMILY	Acoraceae
GENUS	*Acorus*
SPECIES	*A.calamus*
BOTANICAL NAME	*Acorus calamus*
ENGLISH NAME	Sweet flag
PARTS USED	Root
CHEMICAL CONSTITUENT	Calamenol, Acoric acid, Camphene, Eugenol.
ACTION	Germicide, Disinfectant, Insecticidal, Stimulant.
SUVAI- THANMAI- PIRIVU	Karppu – Veppam – Karppu
USES	Anti-microbial, relieve constipation, Fever, Syphilis.

7.MARAMANJAL:

மரமஞ்சள் பொதுகுணம்:

"அழன்ற கண மூலம் அருசியுடனே
உழன்ற கணச்சுரமும் ஓடுஞ்சுழன் றுள்ளே
வீறிசுர முந்தணியும் வீசு மரமஞ்சளுக்குத்
தேறு மோழியனமே செப்பு"

GENERAL PROPERTIES OFMARAMANJAL:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Eudicots
ORDER	Ranunculales
FAMILY	Menispermaceae
GENUS	*Coscinium*
SPECIES	*C.fenestratum*
BOTANICAL NAME	*Coscinium fenestratum*
ENGLISH NAME	Tree turmeric
PARTS USED	Stem and Root.
CHEMICAL CONSTITUENT	Berberine, Palmatine and Jatrorrhizine.
ACTION	Bitter, Febrifuge, Stomachic, Tonic.
SUVAI- THANMAI-PIRIVU	Kaippu – Veppam – Karppu
USES	It is used for ophthalmic, skin disease, abdomen disorder and jaundice.

8.VEPPAM MARAPATTAI:

"ஓதரிய வேம்பை யுரைக்கிற் சுரமுடனே
வாதமறு மூலகண மாந்தம் போந்தீதா
யுதிரு மெரிபூச்சி குன்மமோதா தொழியுஞ்
சிதறுமலம் போகுமெனத் தேர்"

GENERAL PROPERTIES OFVEPPAM MARAPATTAI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Eudicots
SUBCLASS	Rosids
ORDER	Sapindales
FAMILY	Meliaceae
GENUS	*Azadirecta*
SPECIES	*A.indica*
BOTANICAL NAME	*Azadirecta indica*
ENGLISH NAME	Neem tree
PARTS USED	All parts are used
CHEMICAL CONSTITUENT	Nimbin, Nimbinin, Nimbidin, Azadirone, Nimbin, Azhadirachtin, Isophrenoid, tannin.
ACTION	Immuno modulator[15], Tonic, Astrigent, Disinfectant.
SUVAI- THANMAI-PIRIVU	Kaippu – Veppam – Karppu
USES	It cures acne, chronic wounds, chicken pox, fever.

9.SEENTHIL KODI:

GENERAL PROPERTIES OFSEENTHIL KODI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Eudicots
ORDER	Rununculales
FAMILY	Menispermaceae
GENUS	*Tinospora*
SPECIES	*T.cordifolia*
BOTANICAL NAME	*Tinospora cordifolia*
ENGLISH NAME	Tinospora
PARTS USED	Leaf, Climber, Tuber.
CHEMICAL CONSTITUENT	Tinocordifolin, Cordioside, Syringin, Cordiol,Cordifolioside A & B, Amritoside A,B,C and D.
ACTION	Immunomodulator, Demulcent, Stomachic, Tonic.
SUVAI- THANMAI-PIRIVU	Kaippu – Veppam – Karppu
USES	Ulcer, Febrifuge for malaria and small pox, Itches, wounds.

3.2. EXTERNAL MEDICINE - CHEMPARUTHI POO ENNAI

1.CHEMPARUTHI POO :

செம்மரத்தைபொதுகுணம்:

செம்மரத்தை மெகவெட்டை தீராப்பிரமி யொடு
வம்பிரத்த வெள்ளை வழுவழுப்பும் வெப்பும்
பெரும்பாடு ரத்தபித்த பேதம் அகற்றும்
கரும்பா மொழிமயிலே காண்

GENERAL PROPERTIES OF CHEMBARUTHI POO:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Eudicots
SUBCLASS	Rosids
ORDER	Malvales
FAMILY	Malvaceae
GENUS	*Hibiscus*
SPECIES	*H.rosa-sinensis*
BOTANICAL NAME	*Hibiscus rosa-sinensis*
ENGLISH NAME	Shoe flower plant
PARTS USED	Leaf, Flower and Root.
CHEMICAL CONSTITUENT	Alpha-arabinopyranoside,.
ACTION	Emollient, Refrigerant, Laxative, Demelcent.
SUVAI- THANMAI-PIRIVU	Inippu – Thatpam – Inippu
USES	Used for diarrhea, reduce swelling, mumps, aid in healing of ulcer and promote hair growth.

2.SOORAI PATTAI:

சூரைபொதுகுணம்:

"மந்தம் அதிகரிக்கும் வன்சீதளஞ் சேரும்
உந்துகுடல் வலியும் உண்டாங்காண் முந்துநவில்
காரைப் பழத்தில் கதித்ததொரு பேதமுமாஞ்
சூரைப் பழத்திற்குச் சொல்"

GENERAL PROPERTIES OF SOORAI PATTAI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Tracheophyta
SUBCLASS	Magnoliopsida
ORDER	Rosales
FAMILY	Rhamnaceae
GENUS	*Ziziphus*
SPECIES	*Z.oenoplia*
BOTANICAL NAME	*Ziziphus oenoplia*
ENGLISH NAME	Jackal jujube
PARTS USED	Tuber and fruit
CHEMICAL CONSTITUENT	Ziziphines
ACTION	Nutritive, Anthelmintic, Astringent, Antimicrobial.
SUVAI- THANMAI-PIRIVU	Inippu – Thatpam – Inippu
USES	It heals the wounds and good remedy for hyperacidity, Ascaris infection and dysentery.

3.VEMBADAM PATTAI:

GENERAL PROPERTIES OF SOORAI PATTAI:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Tracheophyta
SUBCLASS	Mangnoliopsida
ORDER	Rosales
FAMILY	Rhamnaceae
GENUS	*Ventilago*
SPECIES	*Maderasapatana*
BOTANICAL NAME	*Ventilago maderasapatana*
ENGLISH NAME	Red creeper
PARTS USED	Bark, root and flower
CHEMICAL CONSTITUENT	Anthraquinones, Beta sitosterol, Glucosides, Lupeol.
ACTION	Carminative, Depurative, Thermogenic, Tonic and Stomachic.
SUVAI- THANMAI-PIRIVU	Thuvarppu, kasappu– Thatpam – Karppu
USES	It is used against scabis, treats atonic dyspepsia and skin diseases.

COCONUT OIL:

தேங்காயெண்ணை பொதுகுணம்:

"இலாங்கலி யெண்ணையு மெண்ணையைப் போன்றே
பொலாங்கு செய்திடம் போற்ற லொண்ணாதே"

GENERAL PROPERTIES OF COCUNUT OIL:

KINGDOM	Plantae
DIVISION	Angiosperms
CLASS	Monocots
SUBCLASS	Commelinids
ORDER	Arecales
FAMILY	Arecaceae
GENUS	*Cocos*
SPECIES	*C.nucifera*
BOTANICAL NAME	*Cocos nucifera*
ENGLISH NAME	Coconut tree
PARTS USED	Whole plant
CHEMICAL CONSTITUENT	Fatty acid, tartic acid, Albumin, Alkaloid, Palmitic, Steric, Caprillic acid, Lauric, Mystric.
ACTION	Demulcent, Emollient
SUVAI- THANMAI-PIRIVU	Inippu – Thatpam – Inippu
USES	Burns, Wounds, Colling effect, Posses Healing property, Prevent scar formation.

MATERIALS AND METHODS

4.MATERIALS AND METHODS

SELECTION OF DRUGS:

I have selected the trail drug **"MAHA MANJISHTATHI KASHAYAM"** (Internal) for the study from classical Siddha literature **"AGASTHIYAR VAIDHIYA PILLAI TAMIL"and "CHEMPARUTHI POO ENNAI"** (External) from **" THE PHARMACOPOEIA OF SIDDHA RESEARCH MEDICINES" .**

The raw drugs were procured from the raw drug shop R.N.RAJAN & CO, Chennai. After proper authentication by the Pharmacognosist, Siddha central research institute, Arumbakkam, Chennai-106.

My CTRI number is CTRI/2018/05/013686.

4.1. MAHA MANJISTATHI KASHAYAM (INTERNAL MEDICINE):

INGREDIENTS:[7]

- Manjitti- *Rubia cordifolia* - 35gms
- Kadukai thol - *Terminalia chebula* - 35gms
- Thandrikai -*Terminalia bellarica* -35gms
- Nellimulli- *Phyllanthus emblica*- 35gms
- Kadugurohini- *Picrorhiza scrophuleriflora*– 35gms
- Vasambu- *Acorus calamus*- 35gms
- Maramanjal - *Coscinium fenestratum*- 35gms
- Veppam marapattai - *Azadirecta indica*- 35gms
- Seenthil kodi - *Tinospora cordifolia*- 35gms

Fig no :4.1, Maha manjishtathi kashayam

PURIFICATION OF THE INTERNAL DRUG MAHA

MANJISHTATHIKASHAYAM[23]

Kadukaai: Seed of Kadukaai is removed and the outer skin is used.

Neelimulli: The seeds are removed, and the outer part is used.

Thandrikaai: The seeds are removed, and the outer part is used.

Manjitti: The dust particles are removed and then used.

Kadugurohini: Fried in a low flame and then used

Vasambu: The rhizome is burnt in flame; it is buried under the sand and allow it to cool. It is powdered and then used.

Maramanjal: The dust particles are removed and then used.

Veppam mara pattai: External skin is removed and then used.

Seendhil kodi: The dust particles are removed and then used.

MATERIALS REQUIRED

Fig no :4.2 ,Manjitti

Fig no :4.3, Kadukaai thol

Fig no :4.4, Thandrikai

Fig no :4.5,Nellimulli

Fig no :4.6,Kadugurohini

Fig no :4.7.Vasambu

Fig no :4.8,Maramanjal

Fig no :4.10,Veppamarapattai

Fig no :4.11, Seenthil kodi

METHOD OF PREPARATION

Standard operating procedure for Maha manjishtathi kashayam :

1. All ingredients are dried and coarsely powdered.
2. Powder is added in 3.5litres of boiling water and heated.
3. Reduced to 1.5 liters and made as kashayam.
4. After cooling, pour it into a sterilized container or bottle.

DOSAGE:

30 ml,Twice a day for 48 days.

INDICATION:

All kinds of "KUTTAM".

Fig no :4.12

Fig no :4.13

Fig no :4.14

Fig no :4.15

Fig no :4.16

4.2. CHEMPARUTHI POO ENNAI (EXT MEDICINE)

INGREDIENTS:[8]

Chemparuthi poo	- ¼ kg
Soorai pattai chooranum	-35 gms
Vembadampattai chooranam	- 35 gms
Coconut oil	- 2 liters

PURIFICATION OF THE EXTERNAL DRUG CHEMPARUTHI POO ENNAI

The drugs used for the preparation of chemparuthi poo ennai are purified and dried under classical text procedure.

MATERIALS REQUIRE

Fig no :4.17, **Chemparuthi**

Fig no :4.18, **Soorai pattai**

Fig no :4.19, **Vembadam pattai**

Fig no :4.20, **Thenkaai ennai**

METHOD OF PREPERATION:

- The flowers are kept soaked in oil for 10-20 days and then filtered.
- Suraipattai chooranam and Vembadam pattai chooranam are added.
- Keep in sunlight for 3 days.

INDICATIONS:

Psoriasis, Allergic dermatiti

DRUG STORAGE:

The trial drug is stored in clean air tight glass container (borosil container) and it is dispensed to the patients.

DISPENSING:

The kashayam is given in the container. External oil is given in pet bottles.

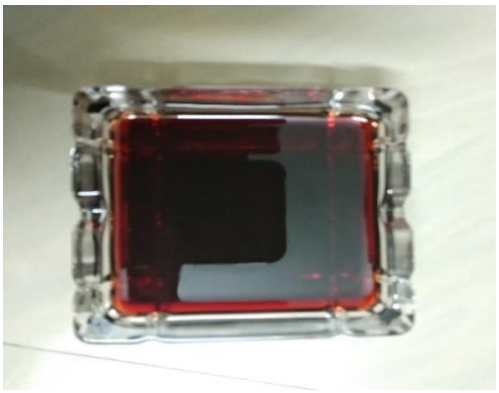


Fig no :4.21,Chemparuthi poo ennai

4.3. DEEP RELAXATION TECHNIQUE: (THERAPY)[6]

PROCEDURE:

- Lie down in SAVASANAM
- Gently move your Whole body, make yourself relax.

PHASE 1:

Bring awareness to the tip of the toes, loosen the ankle joint, relax the calf muscles, gently pull up the knee caps, relax the calf muscles,loosen the hip joint, relax the pelvic and waist region. Chant "A-Kara" and feel the vibration.

PHASE 2:

- Gently observe the abdominal movements, relax the abdomen muscles and chest muscles.
- Relax your lower vertebral joints, upper back muscles, mid back, shoulder blades.
- Relax your fingers one by one, fore arm, loosen the wrist, and relax the elbow joint, back of the arms and shoulder.
- Slowly turn your head to right and left.
- Relax the middle part of the body and chant "U-kara".

PHASE 3:

- Bring the awareness to head region, relax your chin, lower and upper jaws and gums, throat, vocal chords.
- Observe on nostrils, slowly inhale and exhale.
- Relax your eye balls, eye brows, forehead, back of head and crown head, chant "M-kara".

PHASE 4:

- Now your whole body from head to toe is totally relaxed. For further relaxation chant "AUM" 3 times.

Feel the vibration in whole body and enjoy the complete relaxation of the whole body.

Fig no :4.22 , Deep relaxation technique

4.4. STANDARDIZATION OF MAHA MANJISHTATHI KASHAYAM

Standardization of herbal drugs is essential to access quality of the drugs for therapeutic value. Standardization of Maha manjistathi kashayam based on Organoleptic, physical characteristics , physiochemical properties.

4.4.1. ORGANO LEPTIC CHARACTER

Sample Description of MAHA MANJISHTATHI KASHAYAM

Fig no :4.23

Table.4.1 – Oraganoleptic characters

MAHA MANJISHTATHI KASHAYAM (MMK) :

S.No	CHARACTERS	RESULTS	RESULTS
1	State	Solid- Mixed Crude raw Material- Mostly Woody/ Hard solid	Decoction- Water Extraction-
2	Appearance	Dark Brownish	Reddish Brown
3	Nature	Woody bark Consistency	Clear Liquid
4	Odor	Mild	Mild Aromatic
5	Taste	Astringent	Astringent

4.4.2. PHYSIOCHEMICAL ANALYSIS

Percentage Loss on Drying

10gm of test drug was accurately weighed in evaporating dish .The sample was dried at 105ºC for 5 hours and then weighed.

Percentage loss in drying = Loss of weight of sample/ Wt of the sample X 100

Determination of Total Ash

3 g of test drug was accurately weighed in silica dish and incinerated at the furnace a temperature 400 ºC until it turns white in color which indicates absence of carbon. Percentage of total ash will be calculated with reference to the weight of air-dried drug.

Total Ash = Weight of Ash/Wt of the Crude drug taken X 100

Determination of Acid Insoluble Ash

The ash obtained by total ash test will be boiled with 25 ml of dilute hydrochloric acid for 6mins. Then the insoluble matter is collected in crucible and will be washed with hot water and ignited to constant weight. Percentage of acid insoluble

ash will be calculated with reference to the weight of air-dried ash.

Acid insoluble Ash = Weight of Ash/Wt of the Crude drug taken X 100

Determination of Water Soluble Ash

The ash obtained by total ash test will be boiled with 25 ml of water for 5 mins. The insoluble matter is collected in crucible and will be washed with hot water, and ignite for 15mins at a temperature not exceeding 450ºC. Weight of the insoluble matter will be subtracted from the weight of the ash; the difference in weight represents the water soluble ash. Calculate the percentage of water-soluble ash with reference to the air-dried drug.

Water Soluble Ash = Weight of Ash/Wt of the Crude drug taken X 100

Determination of Alcohol Soluble Extractive

About 5 g of test sample will be macerated with 100 ml of Alcohol in a closed flask for twenty-four hours, shaking frequently during six hours and allowing to stand for eighteen hours. Filter rapidly, taking precautions against loss of solvent, evaporate 25 ml of the filtrate to dryness in a tared flat bottomed shallow dish, and dry at 105ºC, to constant weight and weigh. Calculate the percentage of alcohol-soluble extractive with reference to the air-dried drug.

Alcohol sol extract = Weight of Extract/ Wt of the Sample taken X 100

Determination of Water Soluble Extractive

About 5 g of the test sample will be macerated with 100 ml of chloroform water in a closed flask for twenty-four hours, shaking frequently during six hours and allowing to stand and for eighteen hours. Filter rapidly, taking precautions against loss of solvent, evaporate 25 ml of the filtrate to dryness in a tared flat bottomed shallow dish, and dry at 105ºC, to constant weight and weigh. Calculate the percentage of water-soluble extractive with reference to the air-dried drug.

Water soluble extract = Weight of Extract/ Wt of the Sample taken X 100

Determination of pH

About 5 g of test sample will be dissolved in 25ml of distilled water and filtered the resultant solution is allowed to stand for 30 mins and the subjected to pH evaluation

Table no :4.2, Final Test report MMK

S.No	Parameter	Mean (n=3) SD
1.	***Loss on Drying at 105 °C (%)***	9.76 ± 0.85
2.	***Total Ash (%)***	8.51 ± 1.35
3.	***Acid insoluble Ash (%)***	15.27 ± 0.83
4.	***Water Soluble Ash (%)***	13.07 ± 0.70
5.	***Alcohol Soluble Extractive (%)***	34 ± 2.88
6.	***Water soluble Extractive (%)***	23.37 ± 0.94
7.	***PH***	4.4

4.4.3. HEAVY METAL ANALYSIS BY AAS

Standard: Hg, As, Pb and Cd – Sigma

Methodology:

Atomic Absorption Spectrometry (AAS) is a very common and reliable technique for detecting metals and metalloids in environmental samples. The total heavy metal content of the sample KN was performed by Atomic Absorption Spectrometry (AAS) Model AA 240 Series. In order to determination the heavy metals such as mercury, arsenic, lead and cadmium concentrations in the test sample.

Sample Digestion:

Test sample digested with 1mol/L HCl for determination of arsenic and mercury. Similarly for the determination of lead and cadmium the sample were digested with 1mol/L of HNO3.

Standard preparation:

As & Hg- 100 ppm sample in 1mol/L HCl

Cd &Pb- 100 ppm sample in 1mol/L HNO_3

4.4.4. TLC and HPTLC Analysis

TLC Analysis:

Test sample was subjected to thin layer chromatography (TLC) as per conventional one-dimensional ascending method using silica gel 60F254, 7X6 cm (Merck) were cut with ordinary household scissors. Plate markings were made with

soft pencil. Micro pipette was used to spot the sample for TLC applied sample volume 10-micro liter by using pipette at distance of 1 cm at 5 tracks. In the twin trough chamber with different solvent system Toluene: Ethyl Acetate: Acetic Acid (1.5:1:0.5) After the run plates are dried and was observed using visible light Short-wave UV light 254nm and light long-wave UV light 365 nm.

High Performance Thin Layer Chromatography Analysis:

HPTLC method is a modern sophisticated and automated separation technique derived from TLC. Pre-coated HPTLC graded plates and auto sampler was used to achieve precision, sensitive, significant separation both qualitatively and quantitatively. High performance thin layer chromatography (HPTLC) is a valuable quality assessment tool for the evaluation of botanical materials efficiently and cost effectively. HPTLC method offers high degree of selectivity, sensitivity and rapidity combined with single-step sample preparation. In addition, it is a reliable method for the quantitation of Nano grams level of samples. Thus, this method can be conveniently adopted for routine quality control analysis. It provides chromatographic fingerprint of phytochemicals which is suitable for confirming the identity and purity of medicinal plant raw materials.

Chromatogram Development:

It was carried out in CAMAG Twin Trough chambers. Sample elution was carried out according to the adsorption capability of the component to be analyzed. After elution, plates were taken out of the chamber and dried.

Scanning:

Plates were scanned under UV at 366nm. The data obtained from scanning were brought into integration through CAMAG software. Chromatographic finger print was developed for the detection of phytoconstituents present in each extract and Rf values were tabulated.

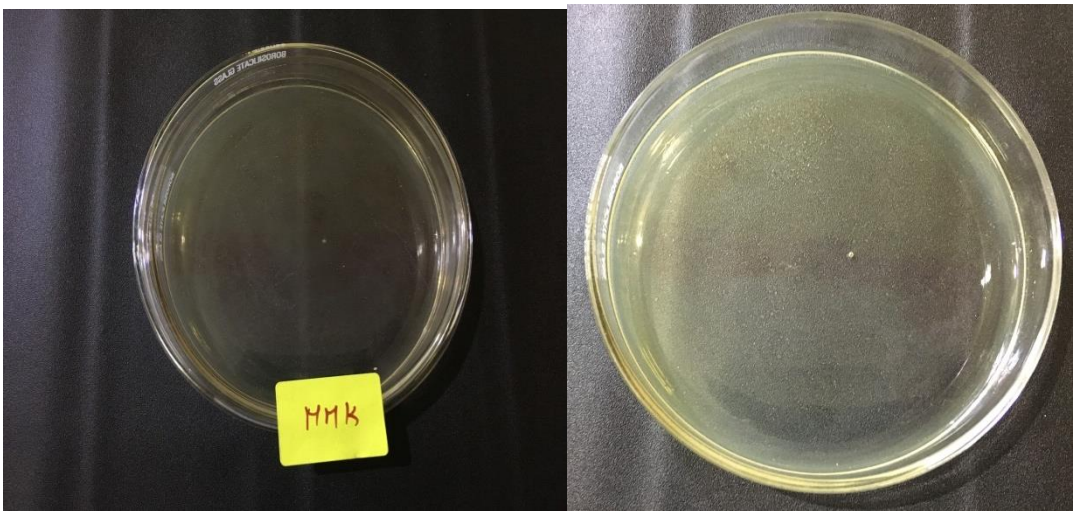
4.4.5. STERILITY TEST BY POUR PLATE METHOD

Objective:

The pour plate techniques were adopted to determine the sterility of the product. Contaminated / un sterile sample (formulation) when come in contact with the nutrition rich medium it promotes the growth of the organism and after stipulated period of incubation the growth of the organism was identified by characteristic pattern of colonies. The colonies are referred to as Colony Forming Units (CFUs).

Methodology:

About 1ml of the test sample was inoculated in sterile petri dish to which about 15 mL of molten agar 45ºC were added. Agar and sample were mixed thoroughly by tilting and swirling the dish. Agar was allowed to completely gel without disturbing it. (about 10 minutes). Plates were then inverted and incubated at 37º C for 24-48 hours. Grown colonies of organism was then counted and calculated for CFU.



Observation:

No growth was observed after incubation period. Reveals the absence of specific pathogen

Result:

No growth / colonies were observed in any of the plates inoculates with the test sample.

Table no:4.3, Sterility by pour plate method

Test	Result	Specification	As per

			AYUSH/WHO
Total Bacterial Count	Absent	NMT 10^5CFU/g	As per AYUSH specification
Total Fungal Count	Absent	NMT 10^3CFU/g	

4.5. TOXICOLOGICAL STUDY

ACUTE ORAL TOXICITY STUDY OF MAHAMANJISHTATHI KASHAYAM (OECD GUIDELINES -423)

Introduction:

- The acute toxic class method is a stepwise procedure with the use of 3 animals of a single sex per step.
- Depending on the mortality and/or the moribund status of the animals, on average 2-4 steps may be necessary to allow judgment on the acute toxicity of the test substance.
- This procedure is reproducible, uses very few animals and is able to rank substances in a similar manner to the other acute toxicity testing methods.
- The acute toxic class method is based on biometric evaluations with fixed doses, adequately separated to enable a substance to be ranked for classification purposes and hazard assessment.
- In principle, the method is not intended to allow the calculation of a precise LD50,but does allow for the determination of defined exposure ranges where lethality is expected since death of a proportion of the animals is still the major endpoint of this test.
- The method allows for the determination of an LD50 value only when at least two doses result in mortality higher than 0% and lower than 100%.
- The use of a selection of pre-defined doses, regardless of test substance, with classification explicitly tied to number of animals observed in different states improves the opportunity for laboratory to laboratory reporting consistency and repeatability.

Principle of the Test:

It is the principle of the test that based on a stepwise procedure with the use of a minimum number of animals per step, sufficient information is obtained on the acute toxicity of the test substance to enable its classification. The substance is administered orally to a group of experimental animals at one of the defined doses. The substance is tested using a stepwise procedure, each step using three animals of a single sex. Absence or presence of compound-related mortality of the animals dosed at one step will determine the next step, i.e.

− no further testing is needed

− dosing of three additional animals, with the same dose

− dosing of three additional animals at the next higher or the next lower dose level. The method will enable a judgment with respect to classifying the test substance to one of a series of toxicity classes.

Methodology:

Selection of Animal Species

The preferred rodent species is the wistar albino rat, although other rodent species may be used. Healthy young adult animals are commonly used laboratory strains should be employed. Females should be nulliparous and non-pregnant. Each animal, at the commencement of its dosing, should be between 6 to 8 weeks old and the weight (150-200gm) should fall in an interval within±20 % of the mean weight of any previously dosed animals.

Housing and Feeding Conditions

The temperature in the experimental animal room should be 22ºC + 3ºC. Although the relative humidity should be at least 30% and preferably not exceed 70% other than during room cleaning the aim should be 50-60%. Lighting should be artificial, the sequence being 12 hours light, 12 hours dark. For feeding, conventional laboratory diets may be used with an unlimited supply of drinking water. Animals may be group-caged by dose, but the number of animals per cage must not interfere with clear observations of each animal.

Preparation of animals:

The animals are randomly selected, marked to permit individual identification, and kept in their cages for at least 7 days prior to dosing to allow for acclimatization to the laboratory conditions

Test Animals and Test Conditions:

Sexually mature Female Wistar albino rats (150-200gm) were obtained from TANUVAS, Madhavaram, Chennai. All the animals were kept under standard environmental condition (22±3°C). The animals had free access to water and standard pellet diet (Sai meera foods, Bangalore).

Preparation of animals:

The animals are randomly selected, marked to permit individual identification, and kept in their cages for at least 7 days prior to dosing to allow for acclimatization to the laboratory conditions

PREPARATION FOR ACUTE TOXICITY STUDIES

Rats were deprived of food overnight (but not water 16-18 h) prior to administration of the, ***MAHA MANJISHTADHI KASHAYAM***.

The principles of laboratory animal care were followed and the Institutional Animal Ethical Committee approved the use of the animals and the study design

IAEC approved Number: 1248/AC/09/CPCSEA-9/DEC-2013/12

Test Substance	: **MAHA MANJISHTADHI KASHAYAM**
Animal Source	: TANUVAS, Madhavaram, Chennai.
Animals	: Wister Albino Rats (Female-3+3)
Age	**:** 6-8 weeks
Body Weight on Day 0	**:** 150-200gm.
Acclimatization	**:** Seven days prior to dosing.
Veterinary examination	**:** Prior and at the end of the acclimatization period.
Identification of animals	**:** By cage number, animal number and individual marking by using Picric acid.
Number of animals	: 3 Female/group,
Route of administration	: Oral
Diet	**:** Pellet feed supplied by Sai meera foods Pvt Ltd, Bangalore.
Water	**:** Aqua guard portable water in polypropylene bottles.
Housing & Environment	**:** The animals were housed in Polypropylene cages

provided with bedding of husk.

Housing temperature **:** between 22ºC ± 3ºC.

Relative humidity **:** between 30% and 70%,

Air changes **:** 10 to 15 per hour and

Dark and light cycle **:** 12**:**12 hours.

Duration of the study **:** 14 Days

Administration of Doses:

MAHA MANJISHTADHI KASHAYAM was suspended in coconut water and administered to the groups of wistar albino rats in a single oral dose by gavage using a feeding needle. The control group received an equal volume of the vehicle. Animals were fasted 12 hours prior to dosing. Following the period of fasting, the animals were weighed and then the test substance was administered. Three Female animals are used for each group. The dose level of 5, 50, 300 and 2000 mg/kg body weight was administered stepwise. After the substance has been administered, food was withheld for a further 3-4 hours. The principle of laboratory animal care was followed. Observations were made and recorded systematically and continuously as per the guideline after substance administration. The visual observations included skin changes, mobility, aggressively, sensitivity to sound and pain, as well as respiratory movements. Finally, the number of survivors was noted after 24 hrs and these animals were then monitered for a further 14 days and observations made daily. The toxicological effect was assessed on the basis of mortality.

Observations:

Animals are observed individually after dosing at least once during the first 30 minutes, periodically during the first 24 hours, with special attention given during the first 4 hours, and daily thereafter, for a total of 14 days, except where they need to be removed from the study and humanely killed for animal welfare reasons or are found dead. It should be determined by the toxic reactions, time of onset and length of recovery period, and may thus be extended when considered necessary. The times at which signs of toxicity appear and disappear are important, especially if there is a tendency for toxic signs to be delayed. All observations are systematically recorded with individual records being maintained for each animal.

Observations include changes in skin and fur, eyes and mucous membranes, and also

respiratory, circulatory, autonomic and central nervous systems, and somatomotor activity and behavior pattern. Attention was directed to observations of tremors, convulsions, salivation, diarrhea, lethargy, sleep and coma. The principles and criteria summarized in the Humane Endpoints Guidance Document taken into consideration. Animals found in a moribund condition and animals showing severe pain or enduring signs of severe distress was humanly killed. When animals are killed for human reasons or found dead, the time of death was recorded.

Behavior:

The animals will be observed closely for behavior in the first four hours which includes abnormal gait, aggressiveness, exophthalmos, ptosis, akinesia, catalepsy, convulsion, excitation, head twitches, lacrimation, loss of corneal reflex, loss of traction, piloerection reactivity of touch, salivation, scratching, sedation, chewing, head movements, sniffing, Staub, tremor and writhes, diarrhea, leathery, sleep and coma.

Body Weight:

Individual weight of animals was determined before the test substance was administered and weights will be recorded at day 1, 7, and 14 of the study. Weight changes were calculated and recorded. At the end of the test, surviving animals were weighed and humanly killed.

Food and water Consumption:

Food and water consumed per animal was calculated for control and the treated dose groups.

Mortality:

Animals were observed for mortality throughout the entire period.

REPEATED DOSE 28-DAY ORAL TOXICITY (407) STUDY OF MAHA MANJISHTADHI KASHAYAM

Test Substance : **MAHA MANJISHTADHI KASHAYAM**
Animal Source : TANUVAS, Madhavaram, Chennai.
Animals : Wister Albino Rats (Male -24, and Female-24)
Age **:** 6-8 weeks
Body Weight **:** 150-200gm.
Acclimatization **:** Seven days prior to dose.
Veterinary examination **:** Prior and at the end of the acclimatization period.
Identification of animals **:** By cage number, animal number and individual marking by using Picric acid
Diet **:** Pellet feed supplied by Sai Meera Foods PvtLtd, Bangalore
Water **:** Aqua guard portable water in polypropylene bottles.
Housing & Environment **:** The animals were housed in Polypropylene cages provided with bedding of husk.
Housing temperature **:** between 22ºC±3ºC.
Relative humidity **:** between 30% and 70%,
Air changes **:** 10 to 15 per hour
Dark and light cycle **:** 12**:**12 hours.
Duration of the study **: 28 Days.**

Table 4. 4

Groups	**No of Rats**
Group I Vehicle control (C.Water)	12(6male,6 female)
Group II low dose X (20mg)	12 (6male,6 female)
Group III Mid dose 5X (100mg)	12 (6male,6female)
Group IV High dose 10X(200mg)	12(6male,6female)

MAHA MANJISHTADHI KASHAYAM

Methodology:

Randomization, Numbering and Grouping of Animals:

48 Wistar Albino Rats (24M + 24F) were selected and divided into 4 groups. Each group consist of 12 animals (Male -6, and Female-6). First group treated as a control and other three group were treated with test drug (low, mid, high) for 28 days. Animals were allowed acclimatization period of 7 days to laboratory conditions prior to the initiation of treatment. Each animal was marked with picric acid. The females were nulliparous and non-pregnant.

Justification for Dose Selection:

As per OECD guideline three dose levels were selected for the study. They are low dose (X), mid dose (5X), high dose (10X). X is calculated from the acute toxicity dose 2000mgand the X dose is (20mg/kg), 5X dose is (100mg/kg), 10X dose is (200mg/kg).

Preparation and Administration of Dose:

MAHA MANJISHTADHI KASHAYAM suspended in with water, It was administered to animals at the dose levels of X, 5X, 10X. The test substance suspensions were freshly prepared every two days once for 28 days. The control animals were administered vehicle only. The drug was administered orally by using oral gavage once daily for 28 consecutive days.

Observations:

Experimental animals were kept under observation throughout the course of study for the following:

Body Weight:

Weight of each rat was recorded on day 0, at weekly intervals throughout the course of study.

Food and water Consumption:

Food and water consumed per animal was calculated for control and the treated dose groups.

Clinical signs:

All animals were observed daily for clinical signs. The time of onset, intensity and duration of these symptoms, if any, were recorded.

Mortality:

All animals were observed twice daily for mortality during entire course of the study.

Necropsy:

All the animals were sacrificed by excessive anesthesia on day 29. Necropsy of all animals was carried out.

Laboratory Investigations:

Following laboratory investigations were carried out on day 29 in animals fasted over-night. Blood samples were collected from orbital sinus using sodium heparin (200IU/ml) for Bio chemistry and potassium EDTA (1.5 mg/ml) for Hematology as anticoagulant. Blood samples were centrifuged at 3000 r.p.m. for 10 minutes.

Hematological Investigations:

Hematological parameters were determined using Hematology analyzer.

Biochemical Investigations:

Biochemical parameters were determined using auto-analyzer.

Histopathology:

Control and highest dose group animals will be initially subjected to histopathological investigations. If any abnormality found in the highest dose group than the low, then the mid dose group will also be examined. Organs will be collected from all animals and preserved in 10% buffered neutral formalin for 24 h and washed in running water for 24 h. The organ sliced 5 or 6µm sections and were dehydrated in an auto Technicon and then cleared in benzene to remove absolute alcohol. Embedding was done by passing the cleared samples through three cups containing molten paraffin at 50°C and then in a cubical block of paraffin made by the "L" moulds. It was followed by microtome and the slides were stained with Hematoxylin-eosin red.

Statistical analysis:

Findings such as body weight changes, water and food consumption, hematology and blood chemistry were subjected to One-way ANOVA followed by dunnet t test using a computer software program – Graph pad version 7. All data were summarized in tabular form, (Table-6 to 12)

4.6. PHARMACOLOGICAL ACTIVITY

DETERMINATION OF INVITRO ANTI-PSORIATIC POTENTIAL ON CULTURED Hacat CELL LINE

Hacat cells (keratinocytes) were purchased from NCCS Pune were maintained in Dulbecco's modified eagles media (HIMEDIA) supplemented with 10% FBS (Invitrogen) and grown to confluency at 37°c in 5 % CO2 in a humidified

atmosphere in a CO2 incubator(NBS, EPPENDORF, GERMANY). The cells were trypsinized (500µl of 0.025% Trypsin in PBS/ 0.5mM EDTA solution (Himedia)) for 2 minutes and passaged to T flasks in complete aseptic conditions. The cells were then grown till 60% confluency followed by activation with 1µl LPS (1µg/ml). LPS stimulated hacat cells were exposed with different concentrations of samples such as.6.25,12.5,25,50,100µg/ml from 1mg/ml stock and incubated for 24 hours. The % difference in viability was determined by standard MTT assay after 24 hours of incubation.

. **MTT ASSAY** (Arung *et al*., 2000)

MTT is a colorimetric assay that measures the reduction of yellow 3-(4, 5dimethythiazol-2-yl)-2, 5-diphenyl tetrazolium bromide (MTT) by mitochondrial succinate dehydrogenase. The MTT enters the cells and passes into the mitochondria where it is reduced to an insoluble, colored (dark purple) formazan product. The cells are then solubilized with an organic solvent Dimethyl sulfoxide (Himedia) and the released, solubilized formazan product was measured at 540nm. Since reduction of MTT can only occur in metabolically active cells the level of activity is a measure of the viability of the cells.

The cells was washed with 1x PBS and then added 30 µl of MTT solution to the culture (MTT -5mg/ml dissolved in PBS). It was then incubated at 37^0C for 3 hours. MTT was removed by washing with 1x PBS and 200µlof DMSO was added to the culture. Incubation was done at room temperature for 30 minutes until the cell got lysed and color was obtained. The solution was transferred to centrifuge tubes and centrifuged at top speed for 2minutes to precipitate cell debris. Optical density was read at 540 nm using DMSO as blank in a micro plate reader (ELISASCAN, ERBA).

Table no :4.5 , % viability = (OD of Test/ OD of Control) X 100

Sample Concentration(µg/ml)	Average OD at 540nm	Percentage Viability
Control (LPS Induced)	0.5969	100
Sample code: Mahamanjishtathi		
6.25	0.5316	89.06
12.5	0.473	79.24
25	0.4247	71.15

50	0.2038	34.14
100	0.2385	19.96

4.7. CLINICAL STUDY

This clinical study was conducted after getting approval from IEC Institutional Ethical Committee, GSMC, Chennai. IEC NO: GSMC–CH–ME-5/013/2016.This trail was also registered in (CTRI) Clinical Trail Registry of India CTRI REF NO :CTRI/2018/05/013686.This was done in Post graduate Department of Sirappu Maruthuvam ,Government Siddha Meducal college and Hospital, Aringar Anna Campus, Arumbakkam , Chennai -106 under the observation and guidance of Head of the Department.

In this clinical study totally 60 cases was enrolled out of which 20 cases were treated with Internal drug alone. 20 cases were treated with Internal drug,External drug and Deep relaxation Therapy. 20 cases were treated external drug and Deep relaxation Therapy.

4.7.1. STUDY DESIGN:

Study Type **:** An open comparative clinical trial

Study Place : OPD of Aringar Anna Govt. Hospital of Indian medicine attached with Govt. siddha medical college, Arumbakkam, Chennai-106.

Study Period : 12 Months after completion of Pre-clinical studies.

Sample Size : 6**0** patients(OPD)

20 Patients-Under Internal drug alone.

20 Patients- External drug and Deep relaxation technique.

20 Patients- Internal, external drugs and Deep relaxation technique.

.

4.7.2. SUBJECT SELECTION:

There is considerable number of patients reporting of OPD of Aringar Anna govt. hospital, GSMC, with the symptom of inclusion criteria will be subjected to screening test and documented using screening Performa.

SELECTION CRITERIA:

INCLUSION CRITERIA:

- Age: 18 – 60 years.
- Sex : Both Male and Female
- Patches with Scaling.
- Auspitz Sign +ve
- Koebner's Phenomenon +ve
- Patients willing to take photographs before and after treatment
- Patients willing to fill Consent form

EXCLUSION CRITERIA:

History of

- Alcohol
- Narcotic addicts
- Anti –malarial drugs
- Cardiac disease
- Leprosy
- Peptic ulcer
- SLE, Progressive systemic sclerosis
- Evidences of secondary infection in the lesions
- Pregnancy and lactation
- HIV
- Syphilis
- History of long term intake of Steroids.

WITHDRAWAL CRITERIA:

- Intolerance to the drug and development of any serious adverse effect during drug trial.

- Patient turned unwilling to continue during Clinical trial any other systemic illness.

ADR REPORTING:

If ADR is reported, it should be informed to SCRI (Peripheral Pharmaco vigilance center). Patient is directed to nearest Government Hospital.

4.7.3. CLINICAL ASSESSMENT:

1. Psoriasis area severity index (PASI)
2. Photo Assessment:

   Photos of the patient before and after treatment for the evidence of clinical improvement.

MODERN INVESTIGATION:

Blood:

Hb, TC, DC, ESR,

Blood Sugar (F) (PP),

Renal Function Tests:

Blood Urea,

Serum Creatinine.

Liver Function Tests:

Serum total bilirubin,

Direct bilirubin,

Indirect bilirubin,

Alkaline phosphatase,

SGOT, SGPT.

Urine:

Albumin,

Sugar,

Deposits.

PSORIASIS AREA AND SEVERITY INDEX (PASI)

PASI Score is assessment tool for the Psoriasis .

PASI Score is calculated using measuring followings

E – Erythema

D – Desquamation

I – Infiltration

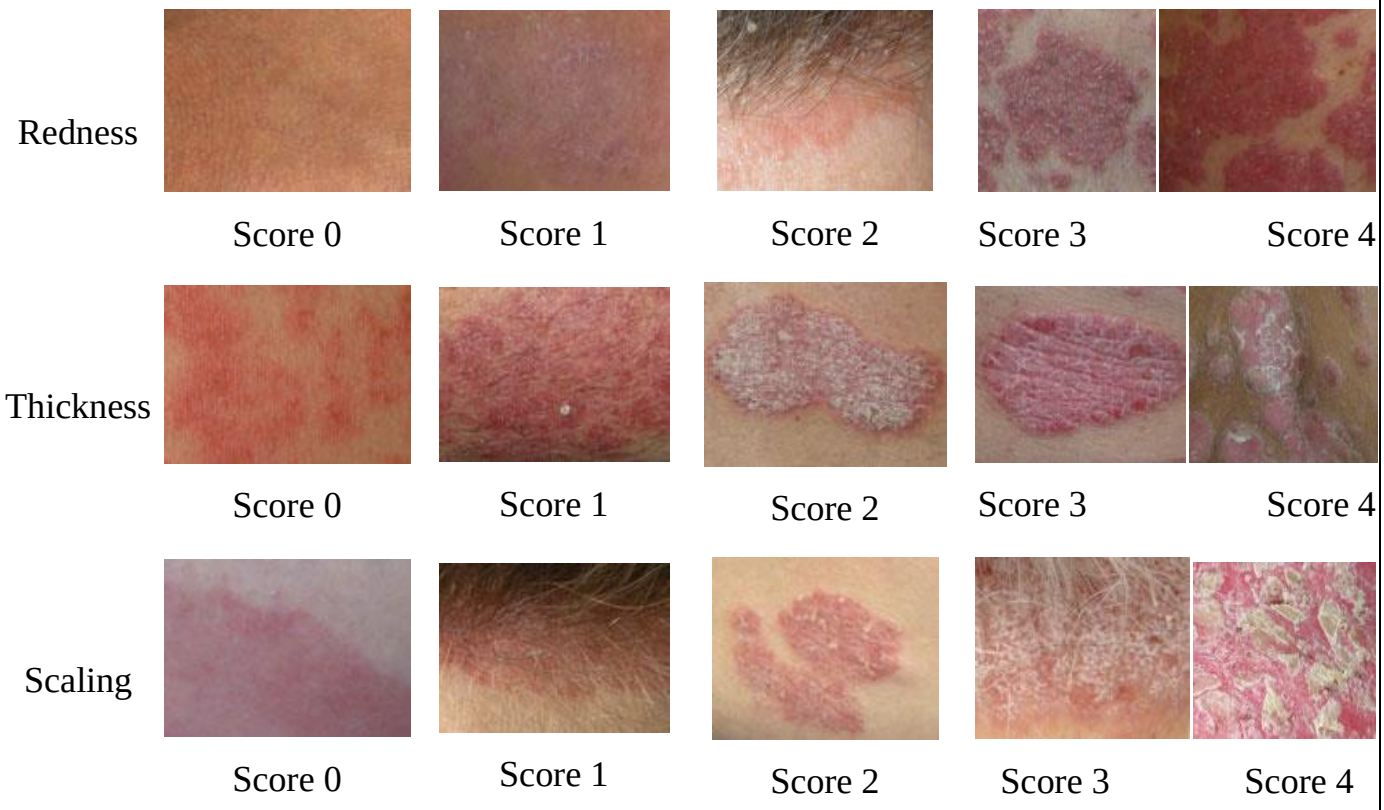
A – Area

$PASI=0.1(E_H+I_H+D_H)A_H+0.2(E_U+I_U+D_U)A_U+0.3(E_T+I_T+D_T)A_T+0.4(E_L+I_L+D_L)A_L$

Erythema/ Infiltration/Desquamation scoring	**Area scoring**
0 – Nil	0-Nil
1- Mild	1-Less than 10%
2- Moderate	2- 10%-30%
3-Severe	3-31%-50%
4-Very high	4-51%-70%
	5-71%-90%
	6-91%-100%

PASI SCORE IMAGES:

Absent **Mild** **Moderate** **Severe** **Very severe**



PSORIASIS ASSESSMENT TOOLS:

In this trial PSORIASIS AREA AND SEVERITY INDEX (PASI SCORE) is used to assess severity of Psoriasis.

Mild to Moderate Psoriasis	: PASI <10
Moderate Psoriasis	: PASI 10 ≤ 12
Moderate to Severe Psoriasis	: PASI 12 ≤ 02
Severe Psoriasis	: PASI > 20

THE CALCULATIONS OF PSORIASIS AREA SEVERITY INDEX (PASI):

The Psoriasis Area severity index (PASI) is an index used to express the severity of Psoriasis. It combines the severity and percentage of affected area

Erythema (Redness) - Symbol (E)

Induration (Thickness) - Symbol (I)

Desquamation (Scaling) - Symbol (D)

Body surface area involvement - Symbol (A)

Over 4 body regions as

Head (h)

Trunk (t)

Upper limb (u)

Lower limb (l)

The PASI Score is calculated by the formula:

$PASI=0.1(E_H+I_H+D_H)\ A_H+0.2(E_U+I_U+D_U)\ A_U+0.3(E_T+I_T+D_T)\ A_T+0.4(E_L+I_L+D_L)\ A_L$

PASI SCORE CALCULATION:

PASI SCORE CALCULATION IN SEVERITY OF BODY REGION

Table no :4.6

DEGREE OF SEVERITY OF BODY REGION	VALUE
No symptom	**0**
Slight	**1**
Moderate	**2**
Marked	**3**
Very Marked	**4**

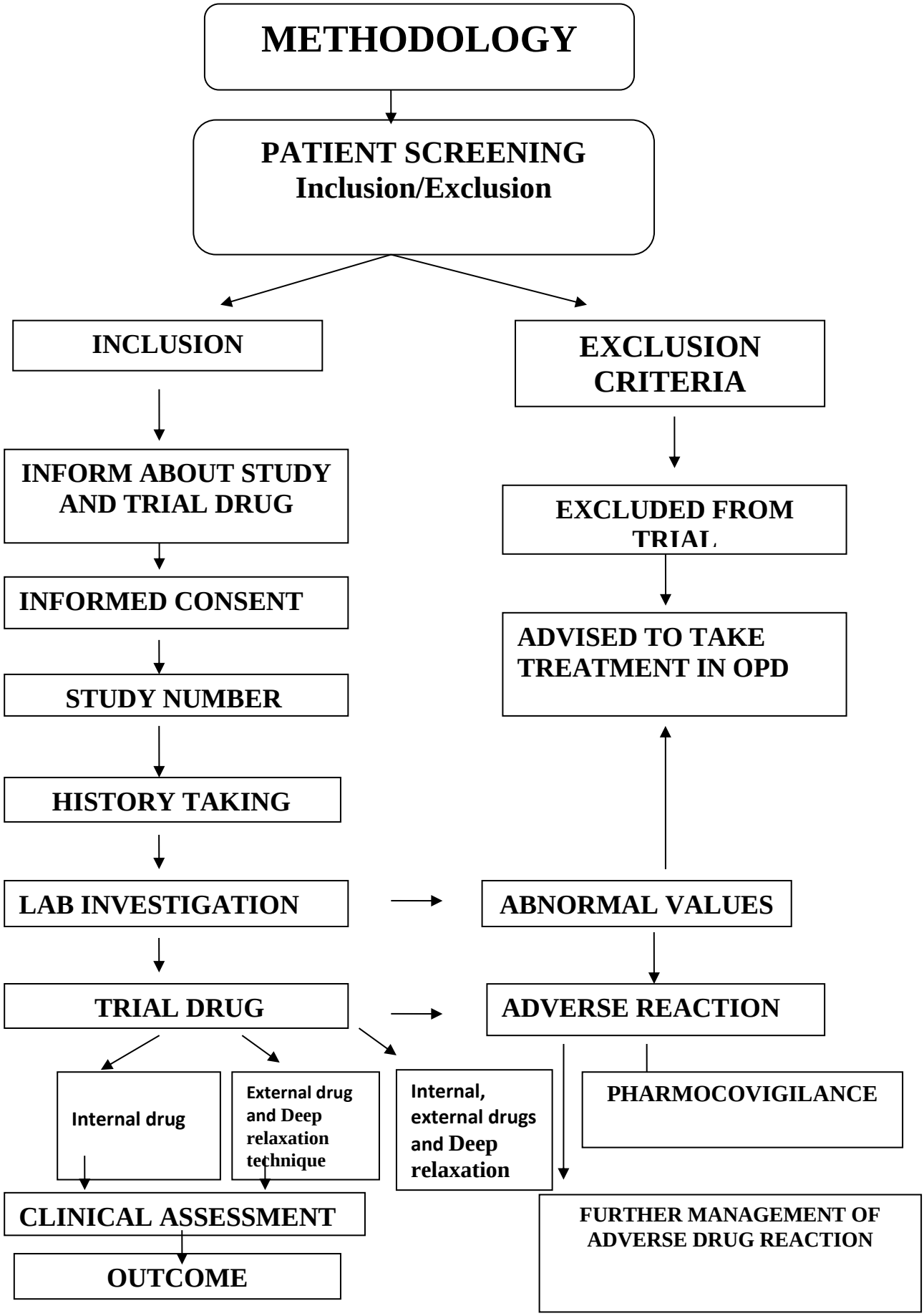
Table no :4.7

PASI SCORE CALCULATION IN SURFACE AREA INVOLVED IN BODY REGION

SURFACE AREA INVOLVED IN BODY REGION	VALUE
<10%	**1**
10-29%	**2**
30-49%	**3**
50-69%	**4**
70-89%	**5**
90-100%	**6**

2.Photo Assessment:

Photos of the patients before and after treatment for the evidence of clinical improvement.


METHODOLOGY
PATIENT SCREENING
Inclusion/Exclusion
INCLUSION
EXCLUSION CRITERIA
INFORM ABOUT STUDY AND TRIAL DRUG
EXCLUDED FROM TRIAL
INFORMED CONSENT
ADVISED TO TAKE TREATMENT IN OPD
STUDY NUMBER
HISTORY TAKING
LAB INVESTIGATION
ABNORMAL VALUES
TRIAL DRUG
ADVERSE REACTION
Internal drug
External drug and Deep relaxation technique
Internal, external drugs and Deep relaxation
PHARMOCOVIGILANCE
CLINICAL ASSESSMENT
FURTHER MANAGEMENT OF ADVERSE DRUG REACTION
OUTCOME

DATA COLLECTION FORMS

Required information will be collected from each patient by using the following forms.

FORM l **:** Screening Proforma

FORM lI **:** History taking Proforma

FORM llI **:** Clinical Assessment Proforma

FORM IV **:** Laboratory Investigation Proforma

FORM V **:** Informed Consent Form

FORM VI **:** Withdrawal Form

FORM VII **:**Drug compliance form

FORM VIII **:** Patient Information Sheet

FORM IX **:**Diet sheet

STUDY ENROLLMENT:

In this study Patient reporting at the OPD with symptoms of erythema, itching, plaques, scaling, Auspitz Sign +, Koebner's Phenomenon + are chosen for enrolment based on this inclusion criteria.

The patients who are to be enrolled would be informed (Form III) about the study, trial drug, possible outcomes and the objectives of the study in the language and terms understandable to them.

After ascertaining the patient's willingness, informed consent would be obtained in writing from them in the consent form (Form V). All these patients will be given Address, Phone number etc. and also the doctor's phone number, so as to report easily any complications arise.

Complete clinical history, complaints and duration, examination findings-- all would be recorded in the prescribed Proforma in the history and clinical assessment forms separately. Screening Form- I will be filled up: Form –II and Form –IV will be used for recording the patients' history, clinical examination of symptoms and signs and laboratory investigations respectively. Patients would be advised to take the trial drug and appropriate dietary advice (Form IX) would be given according to the patients' perfect understanding.

CONDUCT OF THE STUDY:

The Siddha herbal formulation **Maha manjishtathi kashayam** (Internal), **Chemparuthi poo ennai (**External**)** and **Deep relaxation technique** are given for 48 days. OP patients should visit the hospital once in 7 days. At each clinical visit clinical assessment is done and prognosis is noted. Sample size is 60 patients. Among 60 patients, 20 Patients are treated with Internal drug alone. 20 Patients are treated with Internal, external drugs and Deep relaxation technique. 20 Patients are treated with External medicine and Deep relaxation technique. The results will be compared at the end of the study. Laboratory investigations are done at 0 day & 48th day of the trial. After the end of the treatment, the patient is advised to visit the OPD for another 2 months for follow-up.

DATA MANAGEMENT:

After enrolling the patient in the study, a separate file for each patient will be opened and all forms will be kept in the file. Study No. and Patient No. will be entered on the top of file for easy identification. Whenever study patient visits OPD during the study period, the respective patient file will be taken, and necessary recordings will be made at the assessment form or other suitable form. The screening forms will be filed separately. The Data recordings will be monitored for completion and adverse event by HOD and Pharmacovigilance committee. All forms will be further scrutinized in presence of Investigators by Sr. Research Officer (Statistics) for logical errors and incompleteness of data to avoid any bias. No modification in the results is permitted for unbiased reports.

OUTCOME:

Primary Outcome:

- Primary outcome is mainly assessed by reduction in clinical symptoms like itching and scaling.
- PASI Score (Psoriasis area severity index)
- To evaluate the prevention of recurrence by follow-up after two months from the start of intervention.
- To evaluate the days of outcome with in the treatment of 48 days.

Secondary Outcome:

- Secondary outcome is assessed by comparing the safety parameters before and after treatment.

ETHICAL ISSUES:

- Informed consent will be obtained from the patients after explaining about the clinical trial in regional tongue.
- After the consent of the patient (through consent form) if they are in the inclusion criteria they will be enrolled in the study.
- Treatment will be provided free of cost.
- Concomitant medications will be given when required.
- Rescue medications will be given when needed.
- The patients who withdrawal from are given proper treatment with full care at OPD.

RESULTS AND OBSERVATION

5. RESULTS AND OBSERVATION

Table no :5.1. MAHA MANJISHTATHI KASHAYAM (MMK) - ORGANO LEPTIC CHARACTER

S.No	CHARACTERS	RESULTS	RESULTS
1	State	Solid- Mixed Crude raw Material- Mostly Woody/ Hard solid	Decoction- Water Extraction-
2	Appearance	Dark Brownish	Reddish Brown
3	Nature	Woody bark Consistency	Clear Liquid
4	Odor	Mild	Mild Aromatic
5	Taste	Astringent	Astringent

Table no :5.2. PHYSICO – CHEMICAL ANALYSIS

PHYSICO – CHEMICAL ANALYSIS RESULTS FOR MMK

S.No	Parameter	Mean (n=3) SD
7.	***Loss on Drying at 105 °C (%)***	9.76 ± 0.85
8.	***Total Ash (%)***	8.51 ± 1.35
9.	***Acid insoluble Ash (%)***	15.27 ± 0.83
10.	***Water Soluble Ash (%)***	13.07 ± 0.70
11.	***Alcohol Soluble Extractive (%)***	34 ± 2.88
12.	***Water soluble Extractive (%)***	23.37 ± 0.94
7.	***PH***	4.4

Table no : 5.3.HEAVY METAL ANALYSIS

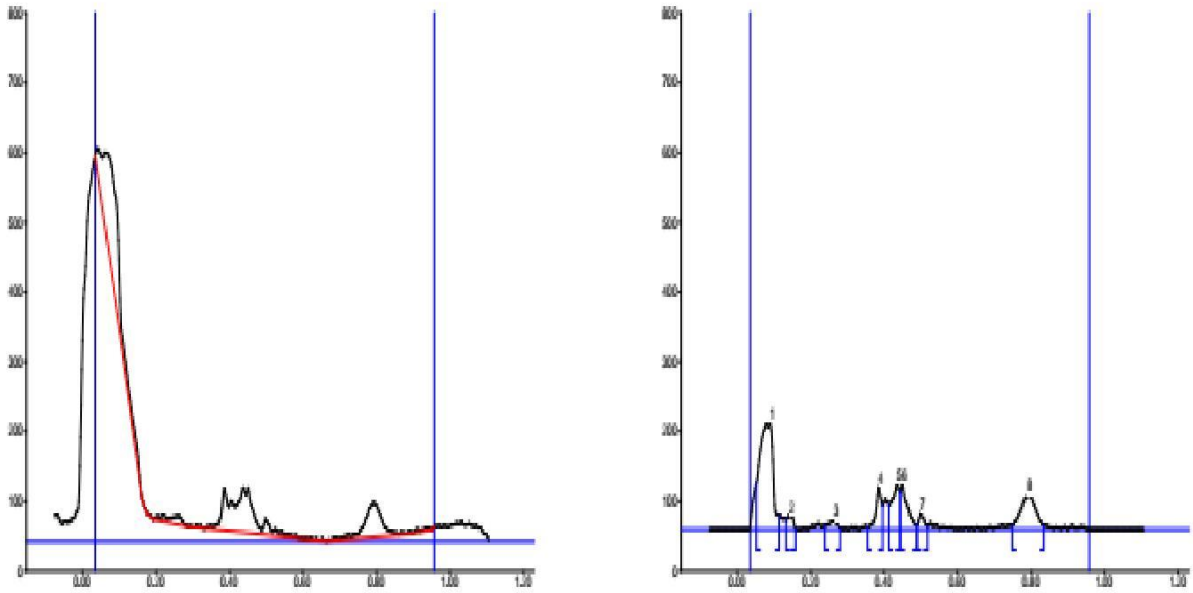
S.No	HEAVY METALS	RESULTS
1	Mercury	No detectable
2	Lead	No detectable
3	Arsenic	No detectable
4	Cadmium	No detectable
5	Chromium	No detectable

OBSERVATION:

Hg, Pb, Cd, Chromium is no detectable limit. Hence it proves the drug is safe for Internal administration.

5.4.TLC AND HPTLC ANALYSIS

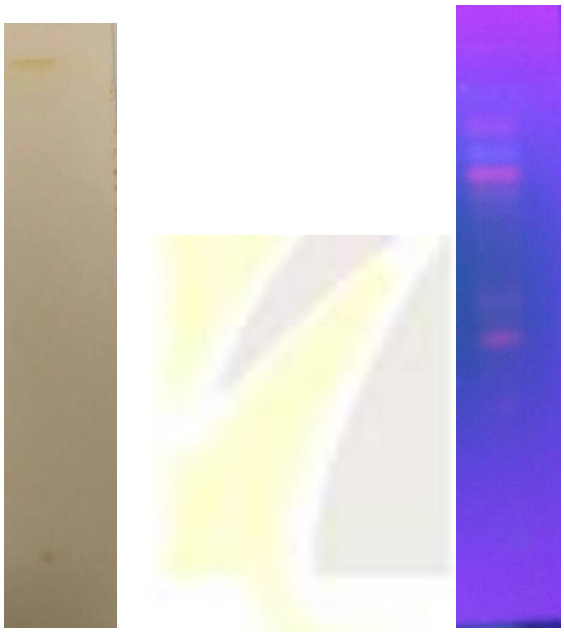
HPTLC finger printing of Sample MMK



Peak Table

Peak	Start Rf	Start Height	Max Rf	Max Height	Max %	End Rf	End Height	Area	Area %
1	0.05	66.0	0.09	151.9	34.03	0.12	20.4	4244.5	46.24
2	0.13	14.8	0.14	20.2	4.52	0.16	1.1	258.3	2.81
3	0.24	5.6	0.26	12.7	2.84	0.28	2.2	243.5	2.65
4	0.36	3.8	0.39	60.6	13.59	0.40	35.2	709.9	7.73
5	0.41	36.4	0.44	63.9	14.32	0.44	54.7	1031.2	11.23
6	0.45	55.1	0.45	64.7	14.49	0.49	7.1	889.7	9.69
7	0.49	7.5	0.50	23.3	5.21	0.52	5.5	276.9	3.02
8	0.75	5.9	0.79	49.1	10.99	0.84	6.9	1525.3	16.62

TLC Analysis at254 nm **TLC Analysis at 366nm**



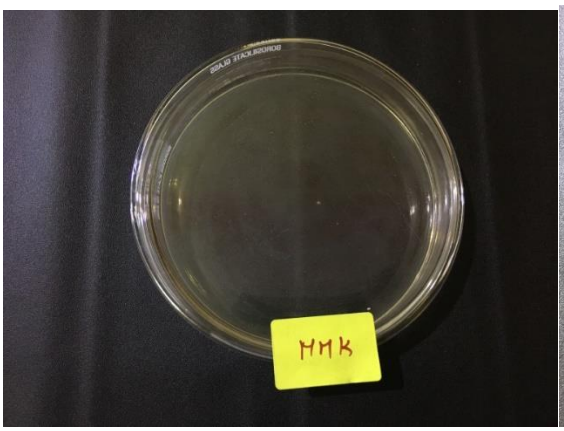
5.5. Sterility test by pour plate method for MMK

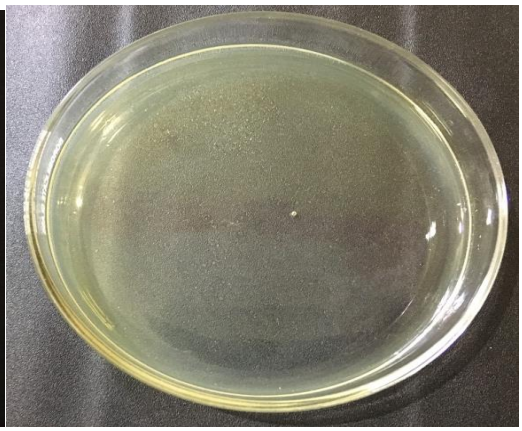
Objective:

The pour plate techniques were adopted to determine the sterility of the product. Contaminated / un sterile sample (formulation) when come in contact with the nutrition rich medium it promotes the growth of the organism and after stipulated period of incubation the growth of the organism was identified by characteristic pattern of colonies. The colonies are referred to as Colony Forming Units (CFUs).

Methodology:

About 1ml of the test sample was inoculated in sterile petri dish to which about 15 mL of molten agar 45^{o}C were added. Agar and sample were mixed thoroughly by tilting and swirling the dish. Agar was allowed to completely gel without disturbing it. (about 10 minutes). Plates were then inverted and incubated at 37^{o} C for 24-48 hours. Grown colonies of organism was then countedand calculated for CFU.





Observation:
No growth was observed after incubation period. Reveals the absence of specific pathogen

Result:
No growth / colonies were observed in any of the plates inoculates with the test sample.

Table no :5.5

Test	**Result**	**Specification**	**As per AYUSH/WHO**
Total Bacterial Count	Absent	NMT 10^5CFU/g	As per AYUSH specification
Total Fungal Count	Absent	NMT 10^3CFU/g	

5.6. Acute oral toxicity study of MAHA MANJISHTADHI KASHAYAM

Observation done:

Table 5.6: Dose finding experiment and its behavioral Signs of acute oral Toxicity

SL	**Group CONTROL**	**Observation**	**SL**	**Group TEST GROUP**	**Observation**
1	Body weight	Normal	1	Body weight	Normally increased
2	Assessments of posture	Normal	2	Assessments of posture	Normal

3	Signs of Convulsion Limb paralysis	Normal	3	Signs of Convulsion Limb paralysis	Absence of sign (-)
4	Body tone	Normal	4	Body tone	Normal
5	Lacrimation	Normal	5	Lacrimation	Absence
6	Salivation	Normal	6	Salivation	Absence
7	Change in skin color	No significant color change	7	Change in skin color	No significant color change
8	Piloerection	Normal	8	Piloerection	Normal
9	Defecation	Normal	9	Defecation	Normal
10	Sensitivity response	Normal	10	Sensitivity response	Normal
11	Locomotion	Normal	11	Locomotion	Normal
12	Muscle gripness	Normal	12	Muscle gripness	Normal
13	Rearing	Mild	13	Rearing	Mild
14	Urination	Normal	14	Urination	Normal

Results:

All data were summarized in tabular form, (Table-1-4) showing for each test group the number of animals used, the number of animals displaying signs of toxicity, the number of animals found dead during the test, description of toxic symptoms, weight changes, food and water intake

No of animals in each group:3

Table 5.7 (Observational study Results)

No	Dose mg/kg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	Control	+	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.	2000mg	+	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1. Alertness 2. Aggressiveness 3. Pile erection 4. Grooming 5. Gripping 6. Touch Response 7. Decreased Motor Activity 8. Tremors 9. Convulsions 10. Muscle Spasm 11. Catatonia 12. Muscle relaxant 13. Hypnosis 14. Analgesia 15. Lacrimation 16. Exophthalmos 17. Diarrhea 18. Writhing

19. Respiration 20. Mortality.

(+ Present, - Absent)

Table 5.8 (Body weight Observation)

DOSE	DAYS		
	1	7	14
CONTROL	200.1±65.70	201.3 ± 41.11	201.6 ±02.12
HIGH DOSE	202.3± 6.64	202.7 ±7.42	203.2 ± 2.70
P value (p)*	NS	NS	NS

Table 5.9 (Water intake (ml/day) of Wistar albino rats group exposed to *MAHA MANJISHTADHI KASHAYAM):*

DOSE	DAYS		
	1	6	14
CONTROL	54 ± 3.20	54±6.10	54.3±5.44
HIGH DOSE	53.5±1.30	53.8±6.70	54.2±5.64
P value (p)*	NS	NS	NS

N.S- Not Significant, **(p > 0.01), *(p >0.05), n = 10 values are mean ± S.D (One-way ANOVA followed by Dunnett's test)

Table 5.10: Food intake (gm/day) of Wistar albino rats group exposed to *MAHA MANJISHTADHI KASHAYAM*

DOSE	DAYS		
	1	7	14
CONTROL	56.03±2.82	56.2±2.96	57.7±8.86
High DOSE	58.6±5.44	58.4±5.20	59.8±6.67

5.7.SUB- ACUTE TOXICITY

Repeated Dose 28- day oral toxic study of MAHA MANJISHTADHI KASHAYAM

Table 5.11: Body weight of wistar albino rats group exposed to *MAHA* MANJISHTADHI KASHAYAM

DOSE	DAYS				
	1	7	14	21	28
CONTROL	242.4±10.40	243.2 ± 15.04	243.4 ± 15.40	244.6± 16.50	244.2 ± 16.10
LOW DOSE	240.5 ± 55.25	241.7 ± 16.29	241.8± 15.24	242 ±16.30	242.8± 46.06
MID DOSE	248.3± 14.72	248.3 ± 22.20	248.4 ± 17.42	249.2 ± 35.08	249.4 ± 34.10
HIGH DOSE	251.3± 23.51	251.7±33.07	252.4 ± 32.34	253 ± 4.08	253 ± 7.70
P value (p)*	NS	NS	NS	NS	NS

NS- Not Significant, **(p > 0.01),*(p >0.05), n = 10 values are mean ± S.D (One way ANOVA followed by Dunnett's test)

Table 5.12: Water intake (ml/day) of Wistar albino rats group exposed to *MAHA* MANJISHTADHI KASHAYAM

DOSE	DAYS				
	1	6	14	21	28
CONTROL	51.3 ± 3.54	51.4±1.27	51.7±1.31	52.1±1.12	52.4±1.72
LOW DOSE	65.1±1.21	65.6±4.22	66.6±1.02	65.2±2.06	66.4±1.20
MID DOSE	62.1±1.02	62.3±1.21	62.1±2.62	63.4±4.32	63.4±1.64
HIGH DOSE	53.6±6.80	53.2±1.52	53.4±1.74	54.6±1.88	54.8±2.82
P value (p)*	NS	NS	NS	NS	NS

N.S- Not Significant, **(p > 0.01), *(p >0.05), n = 10 values are mean ± S.D (One way ANOVA followed by Dunnett's test)

Table 5.13: Food intake (gm/day) of Wistar albino rats group exposed to *MAHA* MANJISHTADHI KASHAYAM

DOSE	DAYS				
	2	7	23	22	28
CONTROL	42±5.21	42.2±4.22	42.8±3.13	43.2±6.72	44±6.80
LOW DOSE	43.6±6.22	43.8±2.42	44.4±1.50	44.5±1.30	44.8±1.12
MID DOSE	44.1±6.70	44.2±2.40	44.6±5.64	45.3±2.40	45.7±1.34
HIGH DOSE	46.4±1.45	46.6±1.34	46.8±2.36	47.2±1.70	47.6±1.62
P value (p)*	NS	NS	NS	NS	NS

Table 5.14: Haematological parameters of Wistar albino rats group exposed to MAHA MANJISHTADHI KASHAYAM

Category	Control	Low dose	Mid dose	High dose	P value (p)*
Haemoglobin(g/dl)	14.5±0.43	14.60±0.32	14.8±0.23	14.84±0.33	N.S
Total WBC ($\times 10^3$ l)	12.71±0.40	12.82±0.21	12.94±0.60	13.06±1.40	N.S
Neutrophils (%)	08.12±0.40	08.22±0.32	08.31±1.50	08.04±2.20	N.S
lymphocyte (%)	90.12±1.60	90.14±1.40	90.16±1.44	91.20±1.64	N.S
Monocyte (%)	0.1±0.02	0.1±0.01	0.1±0.04	0.1±0.03	N.S
Eosinophil (%)	0.02±0.02	0.02±0.04	0.02±0.06	0.02±0.06	N.S

Platelets cells10^3/µl	700.26±2.28	702.32±2.42	702.21±2.60	702.42±3.64	N.S
Total RBC 10^6/µl	7.64±0.32	7.65±0.32	7.65±0.04	7.66±0.06	N.S
PCV%	40.30±0.4	40.32±5.30	40.5±2.70	41.2±1.22	N.S
MCHC g/dL	34.7±1.61	34.8±1.32	34.8±1.35	34.13±1.36	N.S
MCV fL(µm^3)	52.7±3.04	52.7±2.40	52.9±2.20	52.9±1.20	N.S

N.S- Not Significant, **(p > 0.01), *(p >0.05), n = 10 values are mean ± S.D (One way ANOVA followed by Dunnett's test

Table 5.15 : Biochemical Parameters of of Wistar albino rats group exposed to MAHA MANJISHTADHI KASHAYAM

BIOCHEMICAL PARAMETERS	CONTROL	LOW DOSE	MID DOSE	HIGH DOSE	P Value (p)*
GLUCOSE (R) (mg/dl)	98.10±2.40	98.12±1.62	99.9±.08	99.9±5.25	N.S
T.CHOLESTEROL(mg/dl)	109.14±3.10	109.25±2.40	109.30±1.58	110.21±1.60	N.S
TRIGLY(mg/dl)	73.05±1.08	73.11±1.02	73.25±1.42	75.26±1.54	N.S
LDL	68.5±4.13	68.4±1.05	68.3±1.03	69.40±2.44	NS
VLDL	15.2±1.30	15.20±1.71	15.22±1.62	15.24±1.55	NS
HDL	25.22±2.30	25.22±2.60	25.46±1.72	26.56±1.43	NS
Ratio 1(T.CHO/HDL)	4.36±1.10	4.37±1.20	4.64±2.32	4.74±2.63	NS
Ratio 2(LDL/HDL)	2.76±2.33	2.72±1.40	2.79±2.10	2.84±04.02	NS
Albumin (g/dL)	3.9.42±0.50	3.9.62±0.54	3.9.48±4.20	4.02±3.24	NS

NS- Not Significant, **(p > 0.01), * (p >0.05), n = 10 values are mean ± S.D (One way ANOVA followed by Dunnett's test)

Table 5.16: Renal function test of of Wistar albino rats group exposed to *MAHA* MANJISHTADHI KASHAYAM

PARAMETERS	CONTROL	LOW DOSE	MID DOSE	HIGH DOSE	P Value (p)*
UREA (mg/dl)	24.31±0.10	24.30±0.19	24.26±1.28	25.42±1.02	N.S
CREATININE(mg/dl)	0.7±0.04	0.71±0.06	0.73±0.04	0.74±0.08	N.S
BUN(mg/dL)	15.8±0.04	15.8±0.24	15.8±0.42	15.9±1.02	NS
URIC ACID(mg/dl)	5.04±0.02	5.08±0.20	5.4±0.32	5.6±0.20	N.S

NS- Not Significant, **(p > 0.01), * (p >0.05) , n = 10 values are mean ± S.D (One way ANOVA followed by Dunnett's test)

Table 5.17: Liver Function Test of Wistar albino rats group exposed to *MAHA* MANJISHTADHI KASHAYAM

PARAMETERS	CONTROL	LOW DOSE	MID DOSE	HIGH DOSE	P Value (p)*
T BILIRUBIN(mg/dl).	0.04±0.01	0.04±0.03	0.04±0.03	0.04±0.01	N.S
SGOT/AST(U/L)	51.11±1.43	51.12±0.62	52.24±1.34	53.54±1.63	N.S
SGPT/ALT(U/L)	87.11±1.43	87.24±1.14	88.44±1.36	88.33±0.21	N.S
ALP(U/L)	166.30±2.11	166.1±2.10	166±1.14	167.3±2.01	N.S
T.PROTEIN(g/dL)	6.9±0.14	6.9±0.41	7.00±0.60	7.2±0.41	N.S

NS- Not Significant, **(p > 0.01), * (p >0.05), n = 10 values are mean ± S.D (One

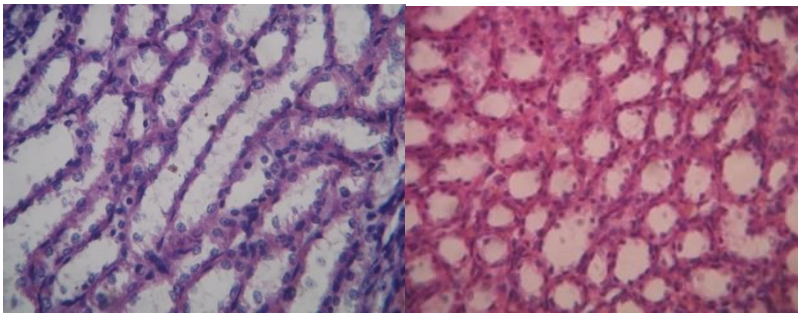
way ANOVA followed by Dunnett's test

5.8. HISTO-PATHOLOGY

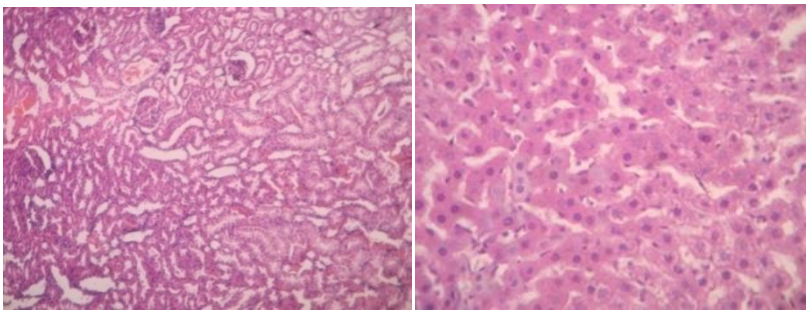
Fig no:5.2

CONTROL GROUP **HIGH DOSE**

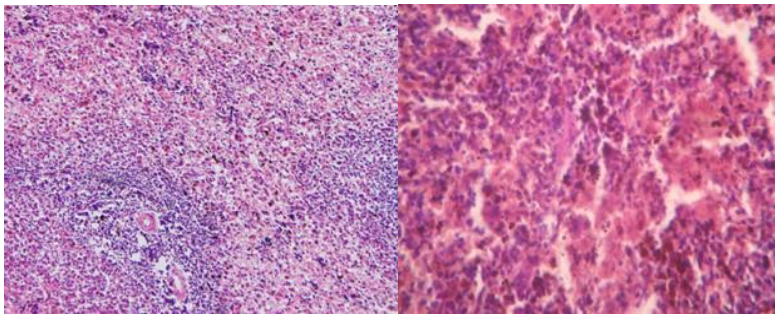
Kidney:



Liver



Spleen



5.9.PHYTOCHEMOCAL ANALYSIS

Table no :5.18

S.NO	TEST	OBSERVATION
1	ALKALOIDS	-
2	FLAVANOIDS	-
3	GLYCOSIDES	+
4	STEROIDS	-
5	TRITERPENOIDS	+
6	COUMARIN	-
7	PHENOL	+
8	TANIN	+
9	PROTEIN	-
10	SAPONINS	+
11	SUGAR	+
12	ANTHOCYANIN	-
13	BETACYANIN	-

PHYTOCHEMICAL ANALYSIS

Test for alkaloids:

Mayer's Test: To the test sample, 2ml of mayer's reagent was added, a dull white precipitate revealed the presence of alkaloids.

Test for coumarins:

To the test sample, 1 ml of 10% sodium hydroxide was added. The presence of coumarins is indicated by the formation of yellow color.

Test for saponins:

To the test sample, 5 ml of water was added, and the tube was shaken vigorously. Copious lather formation indicates the presence of Saponins.

Test for tannins:

To the test sample, ferric chloride was added, formation of a dark blue or greenish black color showed the presence of tannins.

Test for glycosides- Borntrager's Test

Test drug is hydrolysed with concentrated hydrochloric acid for 2 hours on a water bath, filtered and the hydrolysate is subjected to the following tests. To 2 ml of

filtered hydrolysate, 3 ml of choloroform is added and shaken, choloroform layer is separated and 10% ammomia solution is added to it. Pink colour indicates presence of glycosides.

Test for flavonoids:

To the test sample about 5 ml of dilute ammonia solution were been added followed by addition of few drops of conc. Sulfuric acid. Appearance of yellow color indicates the presence of Flavonoids.

Test for phenols:

Lead acetate test: To the test sample; 3 ml of 10% lead acetate solution was added. A bulky white precipitate indicated the presence of phenolic compounds.

Test for steroids:

To the test sample,2ml of chloroform was added with few drops of conc. Sulphuric acid (3ml), and shaken well. The upper layer in the test tube was turns into red and sulphuric acid layer showed yellow with green fluorescence. It showed the presence of steroids.

Triterpenoids

Liebermann–Burchard test: To the chloroform solution, few drops of acetic anhydride was added then mixed well. 1 ml concentrated sulphuric acid was added from the sides of the test tube, appearance of red ring indicates the presence of triterpenoids.

Test for Cyanins

A. Aanthocyanin:

To the test sample, 1 ml of 2N sodium hydroxide was added and heated for 5 min at 100^{o}C. Formation of bluish green colour indicates the presence of anthocyanin.

Test for Carbohydrates - Benedict's test

To the test sample about 0.5 ml of Benedic's reagent is added. The mixture is heated on a boiling water bath for 2 minutes. A characteristic coloured precipitate indicates the presence of sugar.

Proteins (Biuret Test)

To extracts 1% solution of copper sulphate was added followed by 5% solution of sodium hydroxide, formation of violet purple colour indicates the presence of proteins.

RESULTS

Fig no :5.3

Test for Alkaloids

Fig no :5.4

Test for Flavonoids

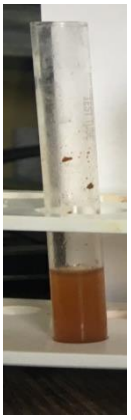


Fig no :5.4

Test for Glycosides

Fig no :5.5
Test for Steroids

Fig no :5.6
Test for Triterpenoids

Fig no :5.7
Test for Coumarins

Fig no :5.8
Test for Phenols

Fig no :5.9
Test for Proteins

Fig no :5.10
Test for Carbohydrates

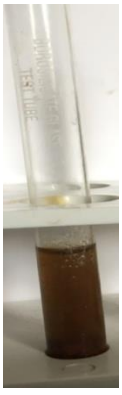


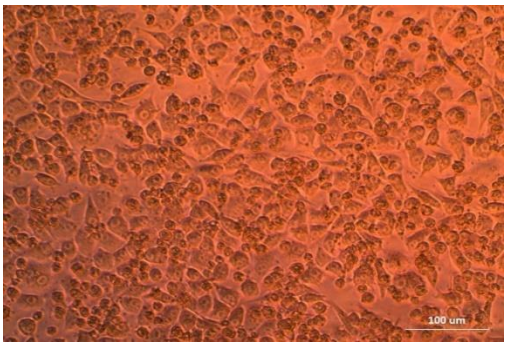
Fig no :5.11,Test for Anthocyanins/ Beta cyanins

5.10. PHARMACOLOGICAL ACTIVITY

ACTIVITY: ANTI-PSORIATIC ACTIVITY

CELL LINE MODEL: Hacat CELL LINE

6.25



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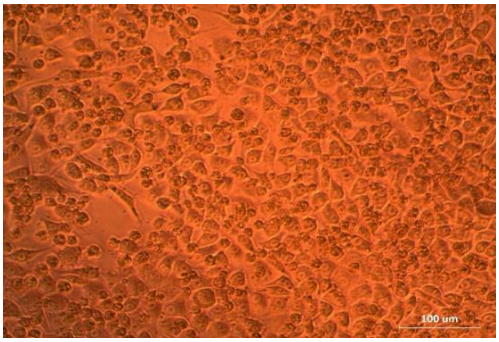

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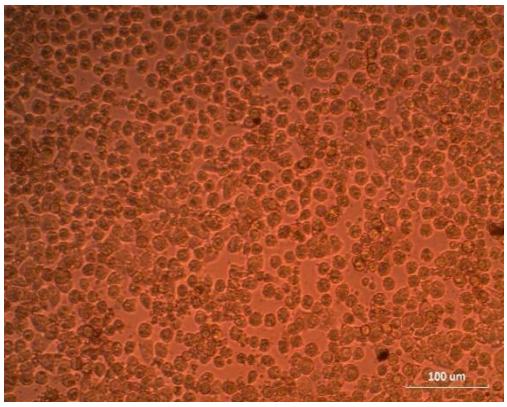

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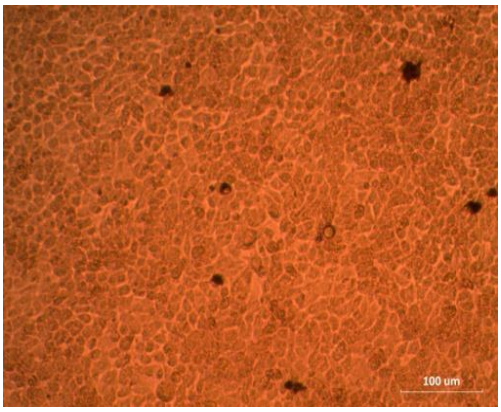

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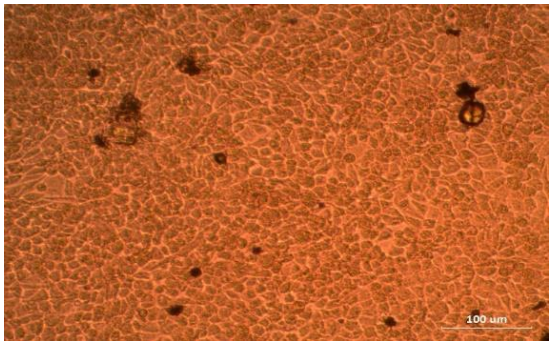


Table no :5.19, % viability = (OD of Test/ OD of Control) X 100

Sample Concentration(µg/ml)	Average OD at 540nm	Percentage Viability
Control(LPS Induced)	0.5969	100
Sample code : Maha manjishtathi Kashayam		
6.25	0.5316	89.06
12.5	0.473	79.24
25	0.4247	71.15
50	0.2038	34.14
100	0.2385	19.96

Results of the study observed with respect to the following criteria

1. Selection of cases
2. Age distribution
3. Gender distribution
4. Occupational distribution
5. Family history
6. Diet habit
7. Trigerring factors
8. Socio economic status
9. Clinical features
10. Other general clinical features
11. Results after improvement
12. Improvement before and after treatment
    a) Group I Maha manjishtathi kashayam
    b) Group II Chemparuthi poo ennai & Deep relaxation technique
    c) Group III Maha manjishtathi kashayam ,Chemparuthi poo ennai & Deep relaxation technique.

13. Kaalam distribution
14. Paruvakaalam
15. Thinai reference
16. Distribution of three doshas
17. Udal kattugal reference
18. En vagai tervugal
19. Neer kuri, Nei kuri reference

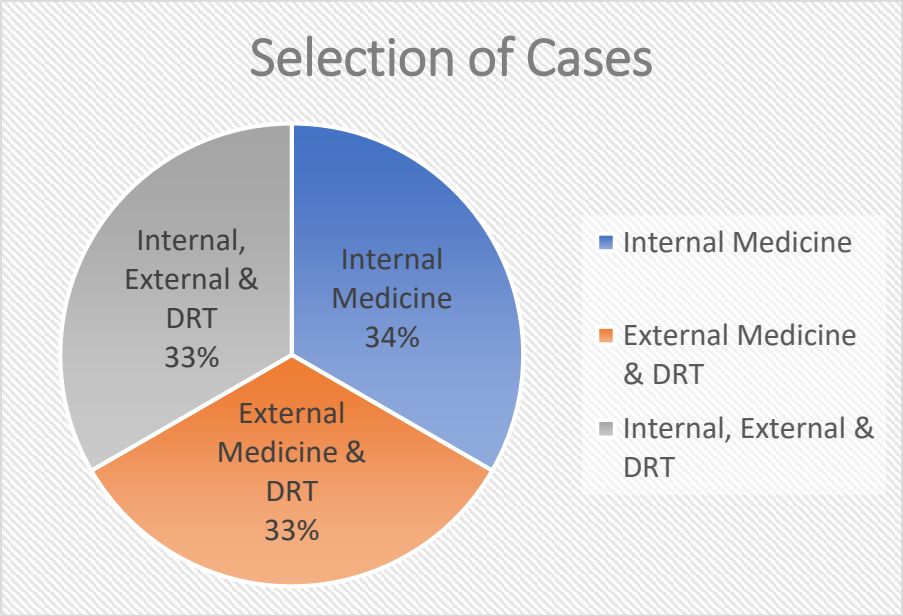
OBSERVATIONS:

In the present clinical study, 60 patients of Psoriasis were treated in the three group completed the study plan. Following are the demographical observation made in this clinical study.

1.SELECTION OF CASES:

Table no :5.20

S.NO	SELECTION OF CASES	NO OF PATIENT	PERCENTAGE
1	INTERNAL MEDICINE	20	33.3%
2	EXTERNAL & PRANAYAMAM	20	33.3%
3	INTERNAL, EXTERNAL & PRANAYAMAM	20	33.3%



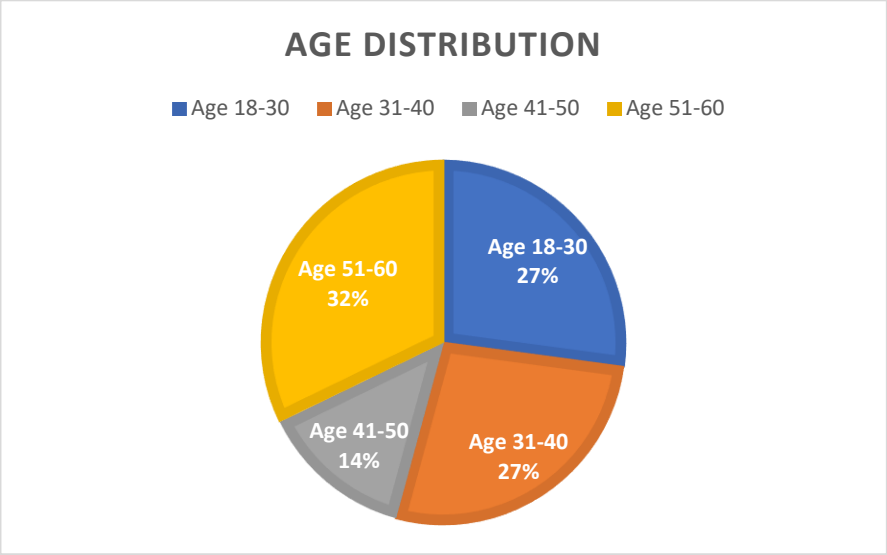
OBSERVATION:

Among 60 cases 20 cases (33.3%) were treated with internal and 20 cases (33.3%) were treated with external and deep relaxation technique, 20 cases (33.3%) were treated with internal, external and deep relaxation technique.

2. AGE DISTRIBUTION:

Table no :5.21

S.NO	AGE IN YEARS	NO OF CASES	PERCENTAGE
1	18 – 30	16	26.66%
2	31 – 40	16	26.66%
3	41 – 50	8	13.33%
4	51 – 60	19	31.66%



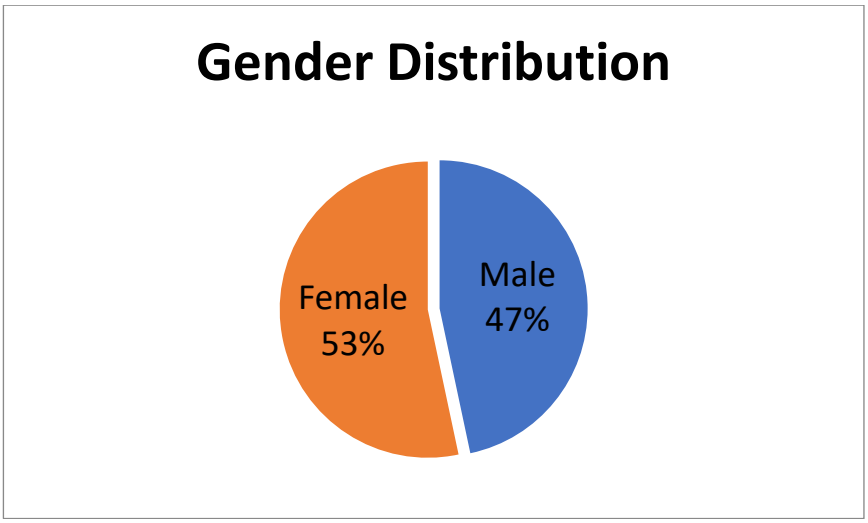
OBSERVATION:

Among 60 cases, high age incidence (40%) is between 51-60yrs, low age incidence (3.33%) is between 41-50yrs.

3. GENDER DISTRIBUTION:

Table no :5.22

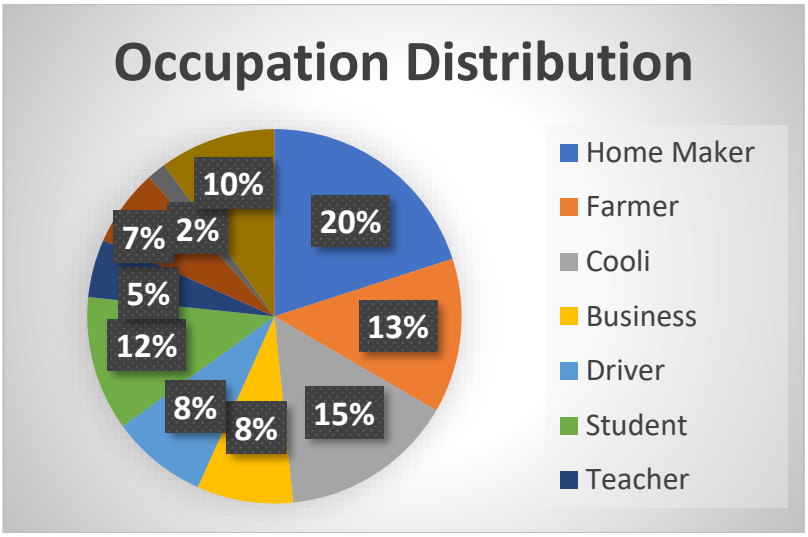
S.NO	SEX	NO OF CASES (OUT OF 60)	PERCENTAGE
1	MALE	28	46.66%
2	FEMALE	32	53.33%



OBSERVATION:
Among 60 patients, 28patients (46.66%) were male, 32 patients (53.33%) were female.

4.OCCUPATION DISTRIBUTION:
Table no :5.23

S.NO	NATURE OF WORK	NO OF CASES	PERCENTAGE
1	HOME MAKER	12	20%
2	FARMER	8	13.33%
3	COOLI	9	15%
4	BUSINESS	5	8.33%
5	DRIVER	5	8.33%
6	STUDENT	7	11.6%
7	TEACHER	3	5%
8	ELECTRICIAN	4	6.66%
9	LAB TECHNICIAN	1	1.66%
10	TAILOR	6	10%



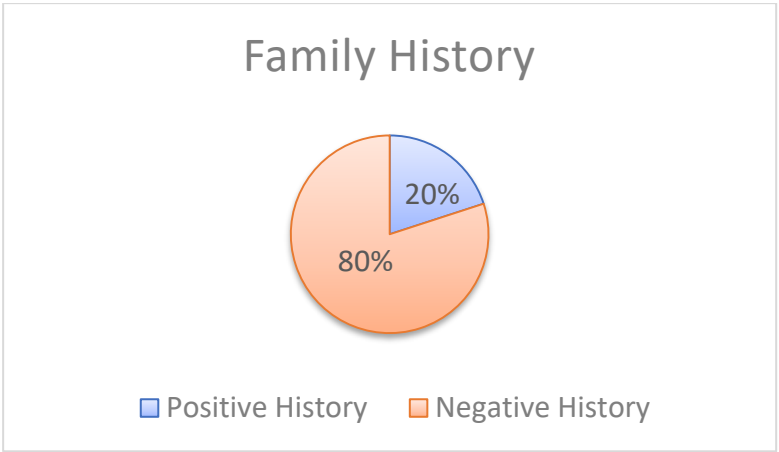
OBSERVATION:

The patients were selected for the study belongs to various occupational statuses and no particular association was found.

6. FAMILY HISTORY:

Table no :24

S.NO	FAMILY HISTORY	NO OF CASS	PERCENTAGE
1	POSITIVE HISTORY	12	20%
2	NEGATIVE HISTORY	48	80%



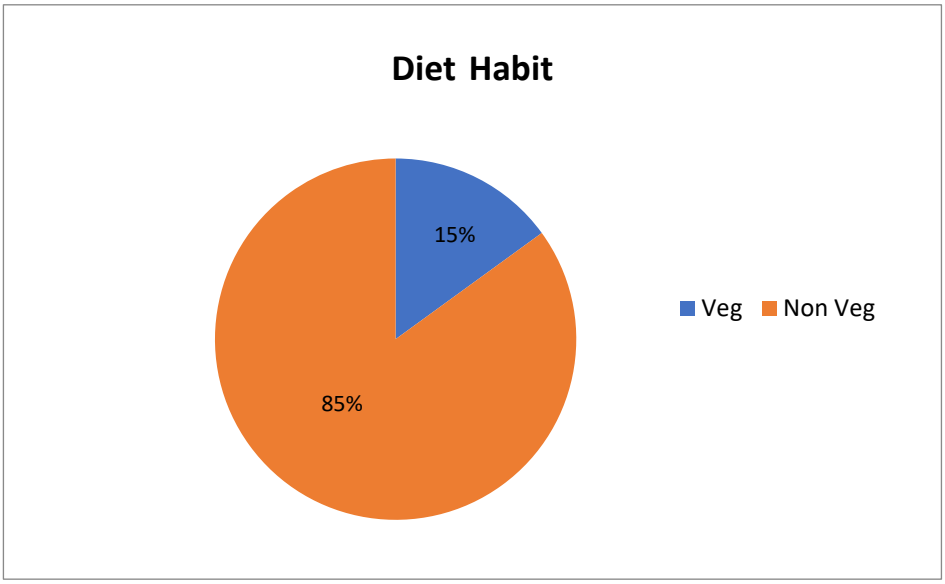
OBSERVATION:

Among 60 patients only 12 patients (20%) were having positive family history.

7. DIET HABIT

Table no :5.25

S.NO	DIET	NO OF CASES	PERCENTAGE
1	VEGETARIAN	9	15%
2	MIXED DIET	51	85%



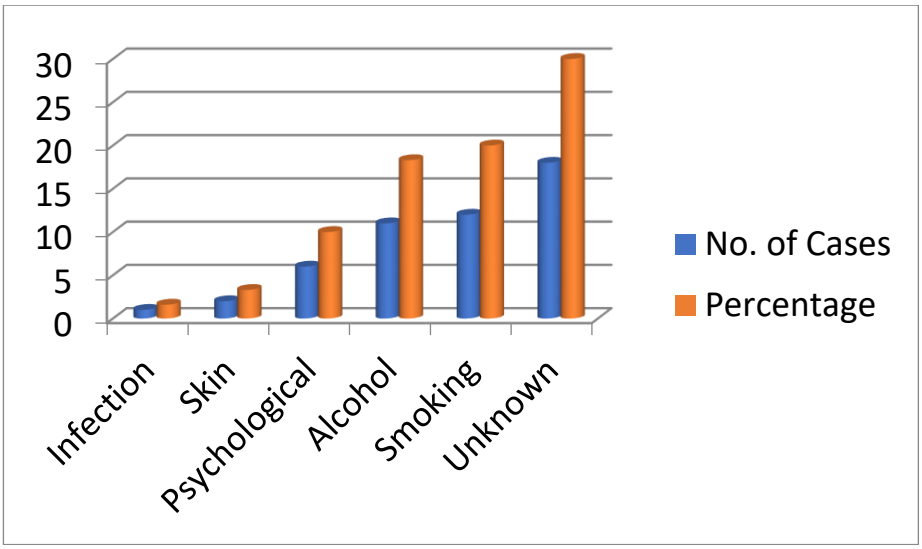
OBSERVATION:

Among 60 patients, 51 patients (85%) were non vegetarian, 9 patients (15%) were vegetarian.

7. TRIGERRING FACTORS:

Table no :.5,26

S.NO	Triggering factors	No of cases	Percentage
1	Infection	1	1.6%
2	Reaction to certain medicine	0	0%
3	Skin injury	2	3.33%
4	Psycho- somatic	6	10%
5	Alcohol	11	18.33%
6	Smoking	12	20%
7	Unknown	18	30%



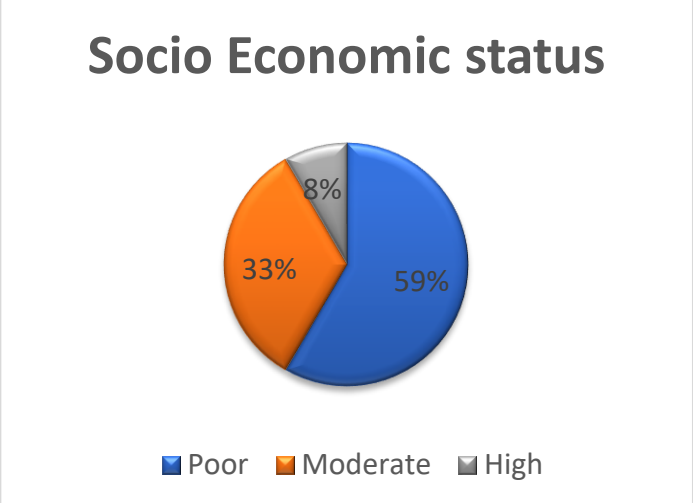
OBSERVATION:

Among 60 patients, 30% of them had unknown triggering factor, while 20% had smoking as the factor, 18.33% due to alcohol, 10% has psycho-somatic reason, 3.33% were due to skin injury.

8. SOCIO ECONOMIC STATUS:

Table no :5.27

SNO	SOCIO ECONOMIC STATUS	NO OF CASES (OUT OF 60)	PERCENTAGE
1	POOR	35	58.33%
2	MODERATE	20	33.33%
3	HIGHER	5	8.33%



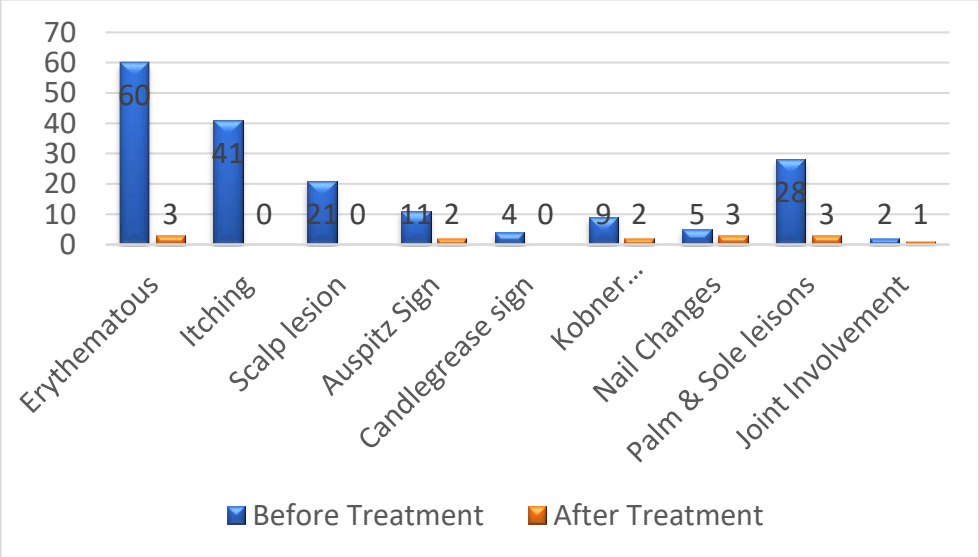
OBSERVATION:

58.33% of the patients were selected from poor and 33.33% of patients were from moderate and remaining 8.33% belongs to higher.

9. CLINICAL FEATURES:

Table no :5.28

S.No	CLINICAL FEATURES	BEFORE TREATMENT		AFTER TREATMENT	
		No of patients	Percentage	No of patients	Percentage
1	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	60	100%	3	5%
2	ITCHING	41	68%	NIL	0%
3	SCALP LESION	21	21%	NIL	0%
4	AUSPITZ SIGN	11	18.3%	2	3.3%
5	CANDLEGEASE SIGN	4	6.6%	NIL	0%
6	KOBNER'S PHENOMENON	9	15%	2	3.3%
7	NAIL CHANGES	5	8.3%	3	5%
8	PALM AND SOLE LESIONS	28	46.6%	3	5%
9	JOINT INVOLVEMENT	2	3.3%	1	1.6%



OBSERVATION:

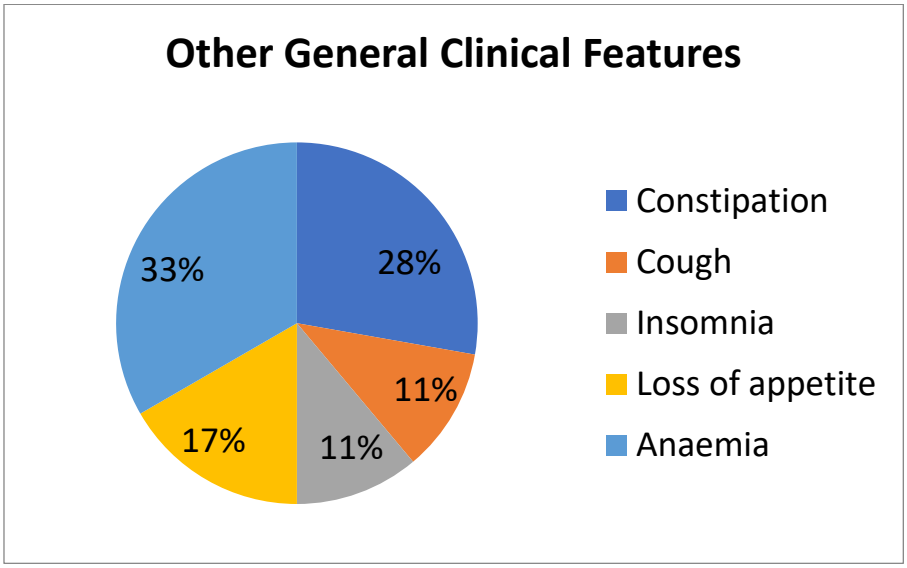
Among 60 patients Erythematous patches with silvery scales and Auspitz sign

,Itching , Koberner's phenomenon as their predominant symptoms but After treatment , the symptoms are markedly reduced ,nail and joint involvements are mildly present.

10. OTHER GENERAL CLINICAL FEATURES:

Table no :5.29

SNO	Clinical features	No of cases	Percentage
1	Constipation	5	8.33 %
2	Cough	2	3.33%
3	Insomnia	2	3.33%
4	Loss of appetite	3	5%
5	Anaemia	6	10%



OBSERVATION:

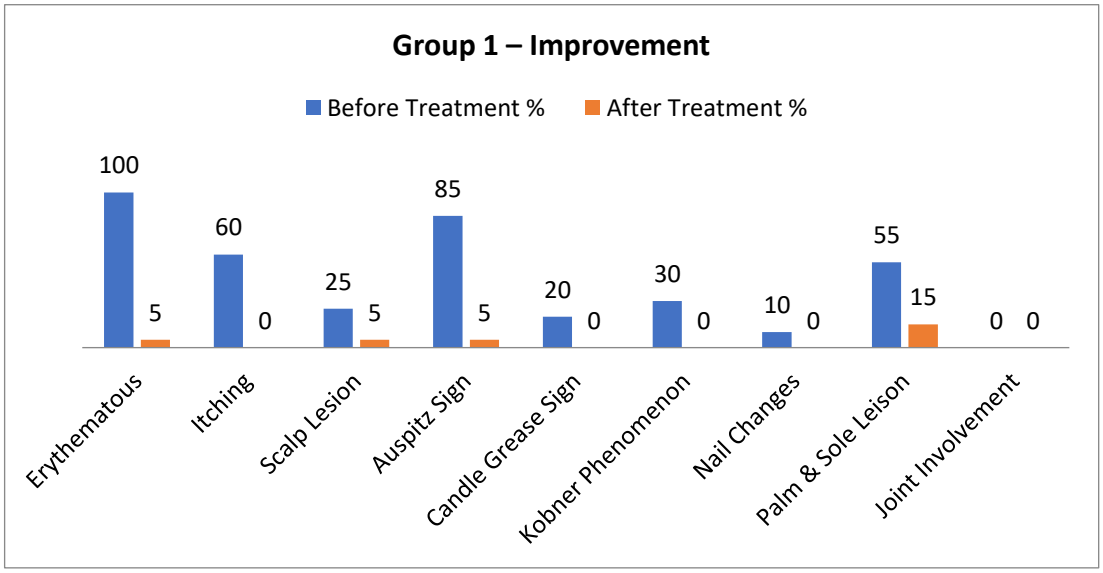
Among 60 patients 5 had constipation, 2 had cough , 2 had insomnia, 3 had loss of appetite, 6 were anemic.

RESULTS AFTER TREATMENT

10. IMPROVEMENT IN PATIENTS TREATED WITH MAHA MANJISHTATHI KASHAYAM (INT) - GROUP I PATIENTS

Table no :5.30

S.No	CLINICAL FEATURES	BEFORE TREATMENT		AFTER TREATMENT	
		No of patients	Percentage	No of patients	Percentage
1	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	20	100%	1	5%
2	ITCHING	12	60%	NIL	0%
3	SCALP LESION	5	25%	1	5%
4	AUSPITZ SIGN	17	85%	1	5%
5	CANDLEGREASE SIGN	4	20%	NIL	0%
6	KOBNER'S PHENOMENON	6	30%	NIL	0%
7	NAIL CHANGES	2	10%	NIL	0%
8	PALM AND SOLE LESIONS	11	55%	3	15%
9	JOINT INVOLVEMENT	0	0%	0	0%



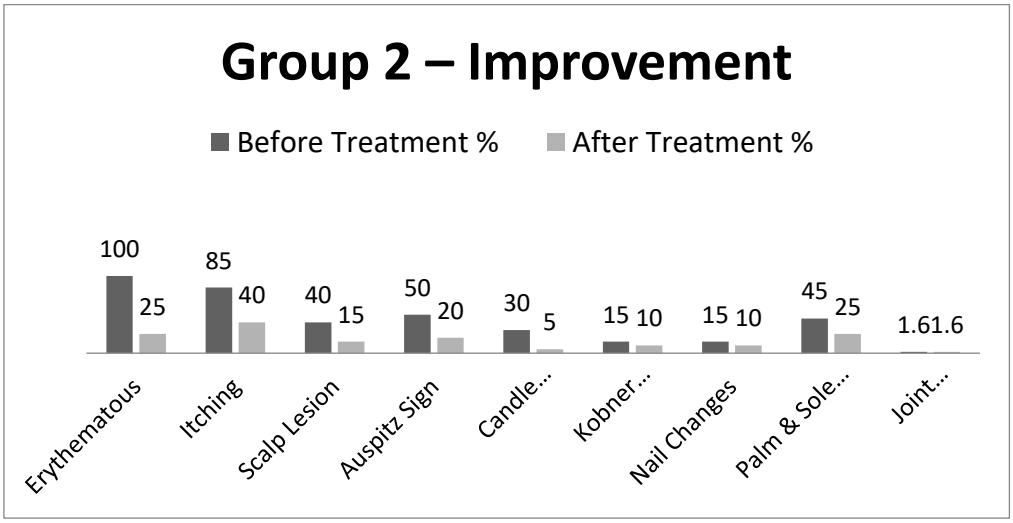
OBSERVATION:

Majority of the cases have Erythema, Itching, Auspitz sign , Kobner's phenomenon as their predominant symptoms.

12. IMPROVEMENT IN PATIENTS TREATED WITH CHEMPARUTHI POO ENNAI (EXT) AND DEEP RELAXATION TECHNIQUE - GROUP II PATIENTS

Table no :5.31

S.No	CLINICAL FEATURES	BEFORE TREATMENT		AFTER TREATMENT	
		No of patients	Percentage	No of patients	Percentage
1	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	20	100%	5	25%
2	ITCHING	17	85%	8	40%
3	SCALP LESION	8	40%	3	15%
4	AUSPITZ SIGN	10	50%	4	20%
5	CANDLEGEASE SIGN	6	30%	1	5%
6	KOBNER'S PHENOMENON	3	15%	2	10%
7	NAIL CHANGES	3	15%	2	10%
8	PALM AND SOLE LESIONS	9	45%	5	25%
9	JOINT INVOLVEMENT	1	1.6%	1	1.6%



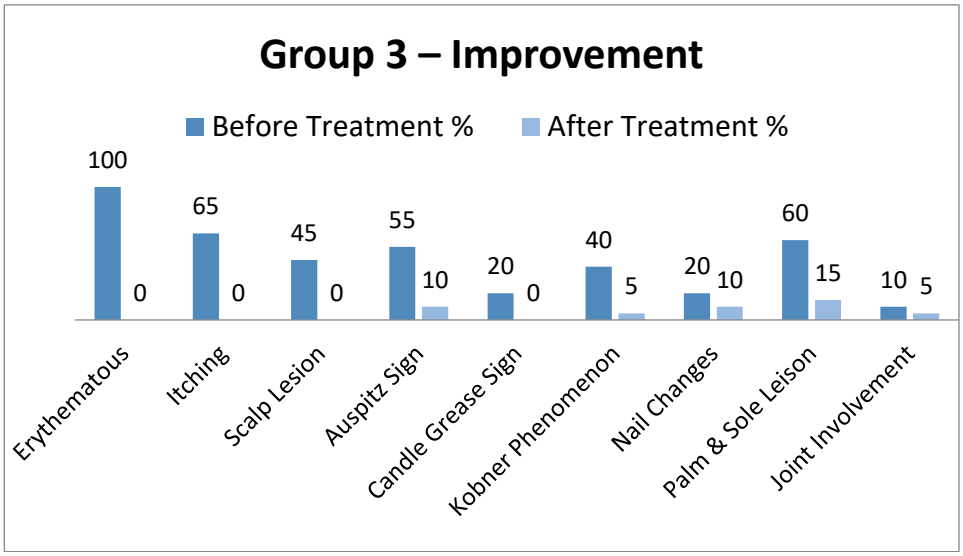
OBSERVATION:

Majority of the cases have Erythema, Itching, Auspitz sign , Kobner's phenomenon as their predominant symptoms.

12.IMPROVEMENT IN PATIENTS TREATED WITH INTERNAL & EXTERNAL MEDICINE WITH THERAPY IN GROUP III PATIENTS

Table no :5.32

S.No	CLINICAL FEATURES	BEFORE TREATMENT		AFTER TREATMENT	
		No of patients	Percentage	No of patients	Percentage
1	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	20	100%	NIL	0%
2	ITCHING	13	65%	NIL	0%
3	SCALP LESION	9	45%	NIL	0%
4	AUSPITZ SIGN	11	55%	2	10%
5	CANDLEGEASE SIGN	4	20%	NIL	0%
6	KOBNER'S PHENOMENON	8	40%	1	5%
7	NAIL CHANGES	4	20%	2	10%
8	PALM AND SOLE LESIONS	12	60%	3	15%
9	JOINT INVOLVEMENT	2	10%	1	5%



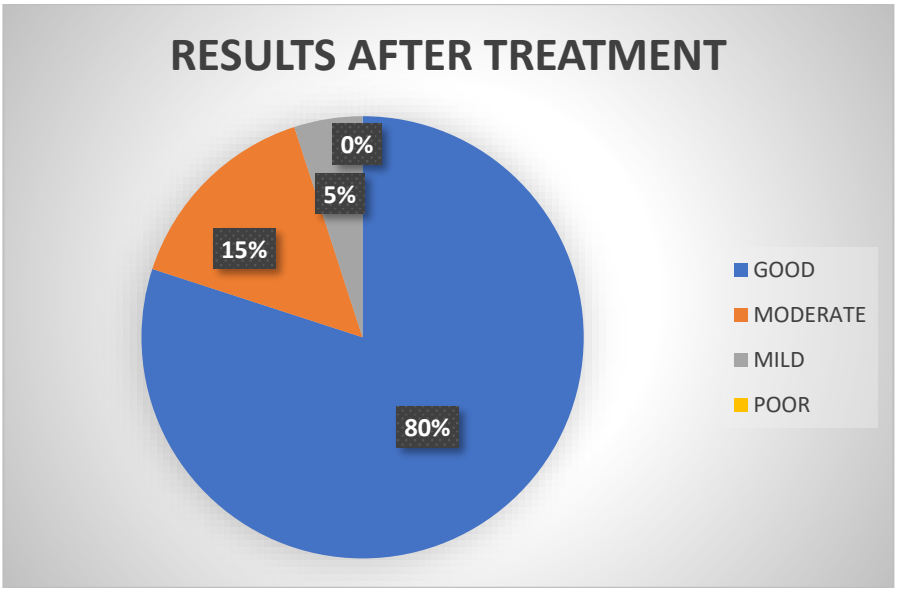
OBSERVATION:

Majority of the cases have Erythema, Itching, Auspitz sign , Kobner's phenomenon as their predominant symptoms.

11. RESULTS AFTER TREATMENT:

Table no :5.33

S.NO	RESULTS	NO OF CASES	PERCENTAGE
1	GOOD	48	80%
2	MODERATE	9	15%
3	MILD	3	5%
4	POOR	0	0%



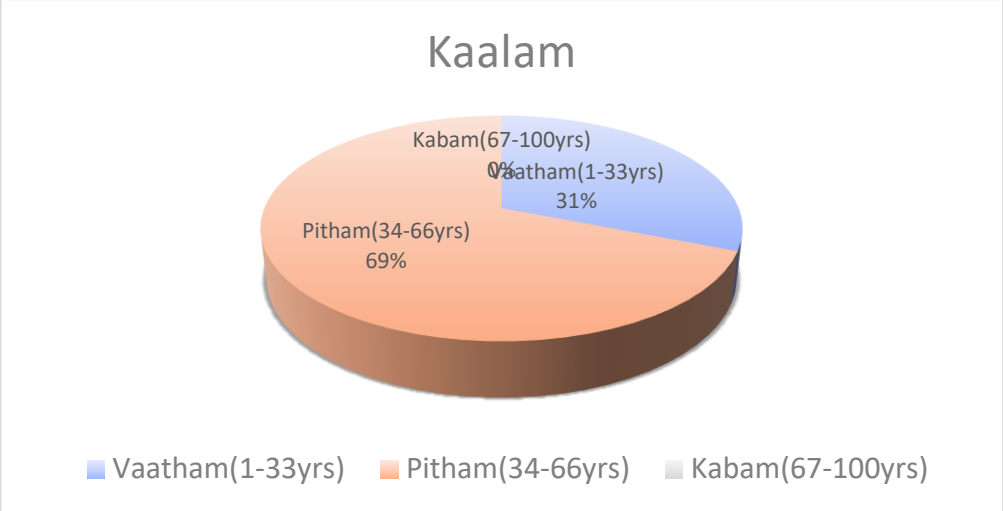
OBSERVATION:

Among 80% of patients were treated with good, 15% of patients were treated with moderate, 5% of patients were treated with mild.

12. KAALAM DISTRIBUTION:

Table no :5.34

S.NO	Kaalam	No of cases	Percentage
1	Vatha kaalam(1-33yrs)	19	31%
2	Pitha kaalam (34-66yrs)	41	69%
3	Kapha kaalam(67-100yrs)	0	0%



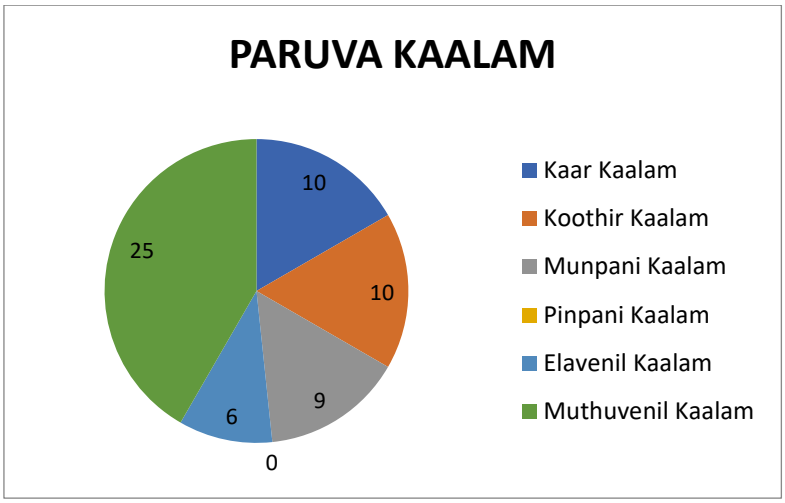
OBSERVATION:

Out of 60 patients, 69 patients were reported in pitha kaalam, 31patients were in vatha kaalam.

13. PARUVA KAALAM:

Table no :5.35

S.No	Paruva kaalam	No of cases	Percentage
1	Kaar kaalam(Aavani&Puratasi) (Aug16-Oct15)	10	16.6%
2	Koothir kaalam(Aippasi&Karthigai) (Oct16-Dec15)	10	16.6%
3	Munpani kaalam(Margazhi&Thai) (Dec16-Feb15)	9	15%
4	Pinpani kaalam(Maasi&Panguni) (Feb16-Aprl15)	0	0%
5	Elavenil kaalam(Chithirai&Vaikasi) (Aprl16-June15)	6	10%
6	Muthuvenil kaalam(Aani&Aadi) (June16-Aug15)	25	41.6%



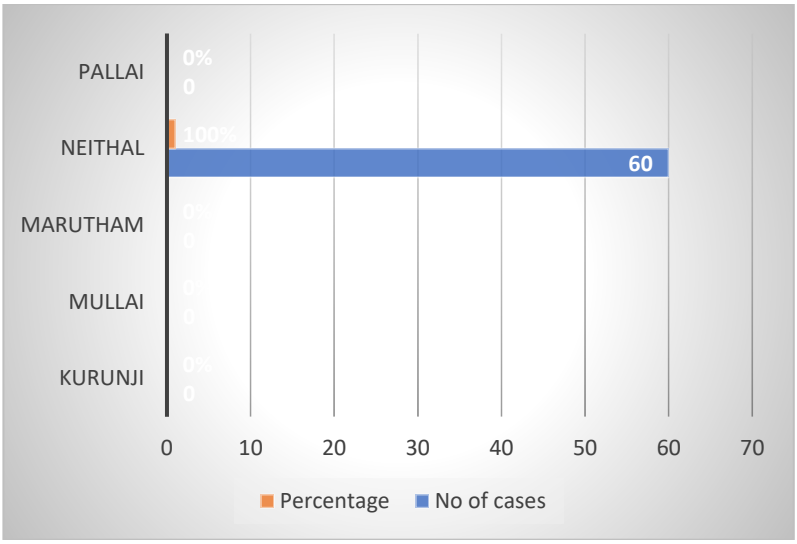
OBSERVATION:

Among the 60 patients enrolled for this study, out of this 10 patients reported in Kaar kaalam, 10patients reported in Koothir kaalam, 9 patients in Munpani kaalam , 6 patients in Elavenil kaalam ,25 patients in Muthuvenil kaalam.

14. THINAI REFERENCE:

Table no :5.36

S.No	Thinai	No of cases	Percentage
1	Kurunji(Hill area)	0	0%
2	Mullai(Forest area)	0	0%
3	Marutham(Fertile land)	0	0%
4	Neithal(Coastal area)	60	100%
5	Pallai(Desert land)	0	0%



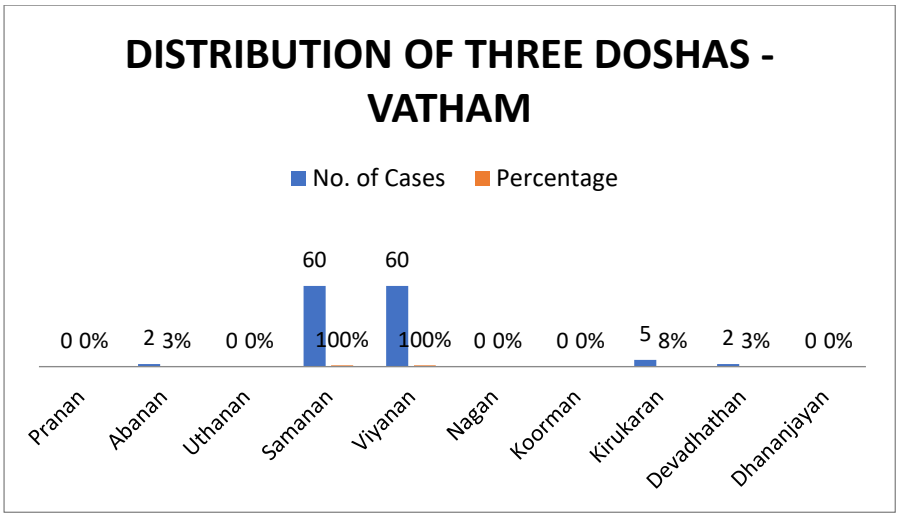
OBSERVATION:

Among the 60 patients, 60 patients were from Neithal (Coastal area).

15. DISTRIBUTION OF THREE DOSHAS – VATHAM

Table no :5.37

S.No	Classification of vatham	No of cases	Percentage
1	Pranan	0	0%
2	Abanan	2	3%
3	Uthanan	0	0%
4	Samanan	60	100%
5	Viyanan	60	100%
6	Nagan	0	0%
7	Koorman	0	0%
8	Kirukaran	5	8%
9	Devadhathan	2	3%
10	Dhananjayan	0	0%



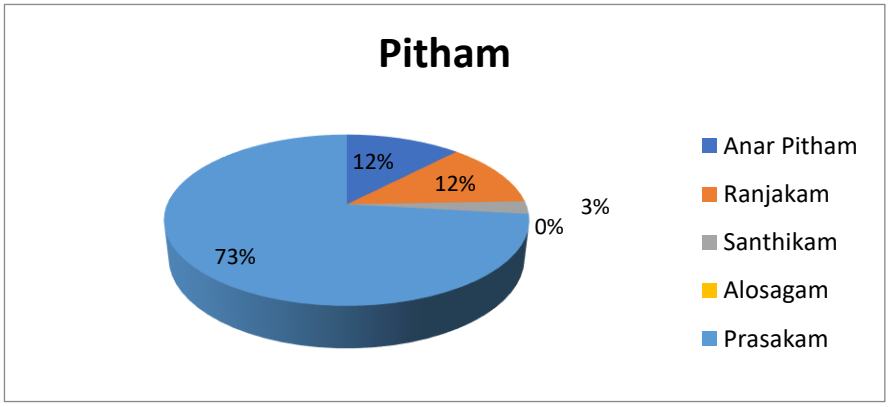
OBSERVATION:

Samanan and Viyanan were found to be affected in all the 60 patients, Abanan and Kirukaran were affected in 2 and 5 , 2 in devathathan.

PITHAM

Table no :5.38

S.No	Classification of Pitham	No of cases	Percentage
1	Anar pithan	10	17%
2	Ranjakam	10	17%
3	Santhikam	2	3.3%
4	Alosagam	0	0%
5	Prasakam	60	100%

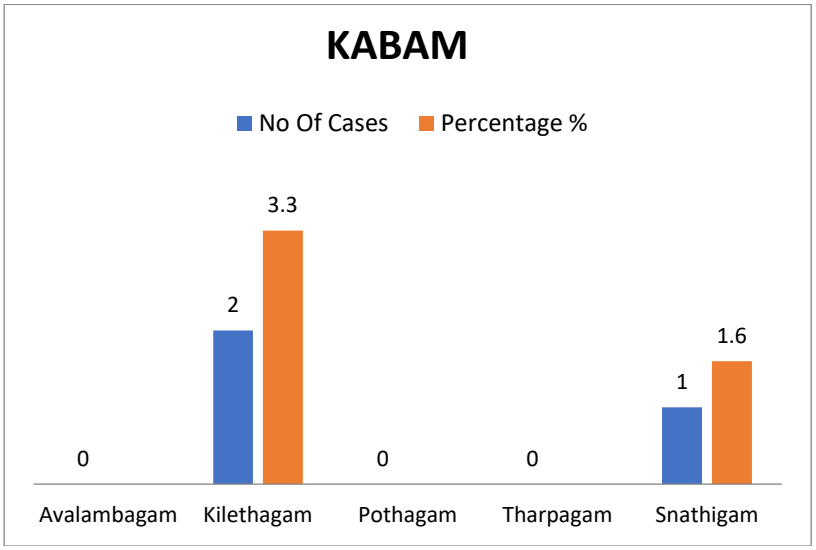


OBSERVATION:

Prasakam was affected in all 60 cases, Anar pitham was affected in 10 cases, Ranjaka pitham was affected in 10 cases. Santhikam pitham was affected in 2 cases.

KABAM
Table no :5.39

S.No	Classification of Kabam	No of cases	Percentage
1	Avalambagam	0	0%
2	Kilethagam	2	3.3%
3	Pothagam	0	0%
4	Tharpagam	0	0%
5	Santhigam	1	1.6%



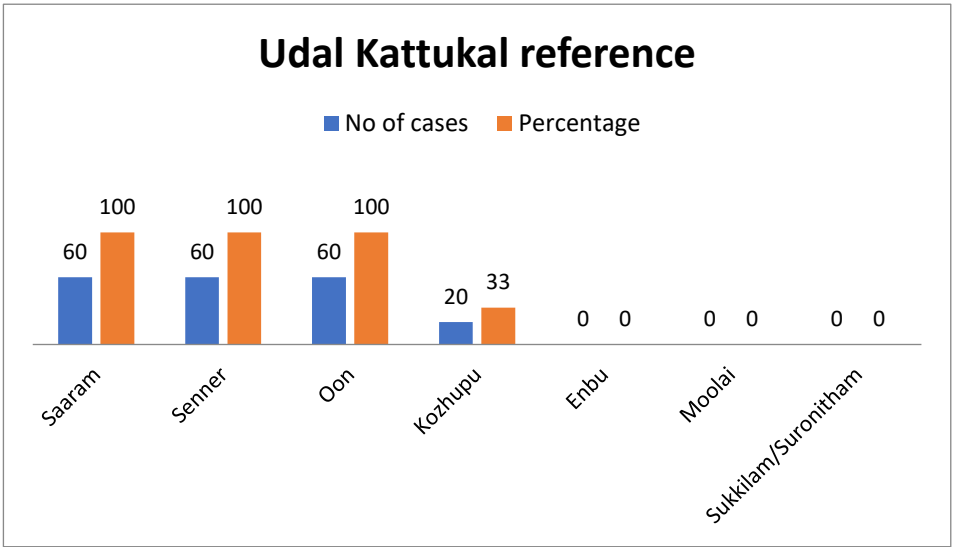
OBSERVATION:

Kilethagam was found to be affected 3.33% of the cases.Santhigam were to be affected as 1.6% of the cases.

16. UDAL KATTUGAL REFERENCE:

Table no :5.40

S.No	Udal kattual	No of cases	Percentage
1	Saaram	60	100%
2	Senner	60	100%
3	Oon	60	100%
4	Kozhupu	20	33%
5	Enbu	0	0%
6	Moolai	0	0%
7	Sukkilam/suronitham	0	0%



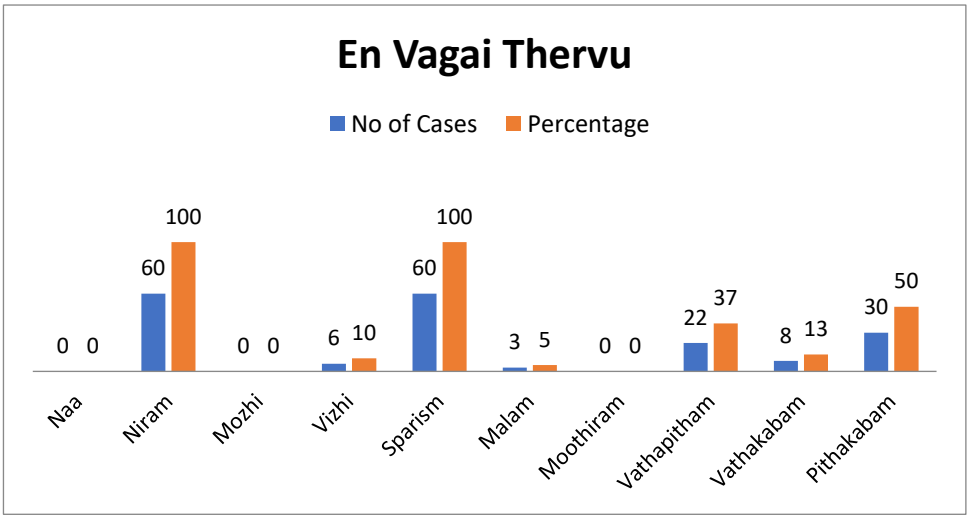
OBSERVATION:

Among the 60 patients, Saaram, Senneer & Oon were affected in all the cases, and Kozhupu was seen affected in 20 patients.

17. EN VAGAI THERVUGAL:

Table no :5.41

S.No	En vagai thervugal	No of cases	Percentage
1	Naa	0	0%
2	Niram	60	100%
3	Mozhi	0	0%
4	Vizhi	6	10%
5	Sparism	60	100%
6	Malam	2	3%
7	Moothiram	0	0%
8	Naadi		
	a.Vatha pitham	22	37%
	b. Vatha kabam	8	13%
	c. Pitha kabam	30	50%



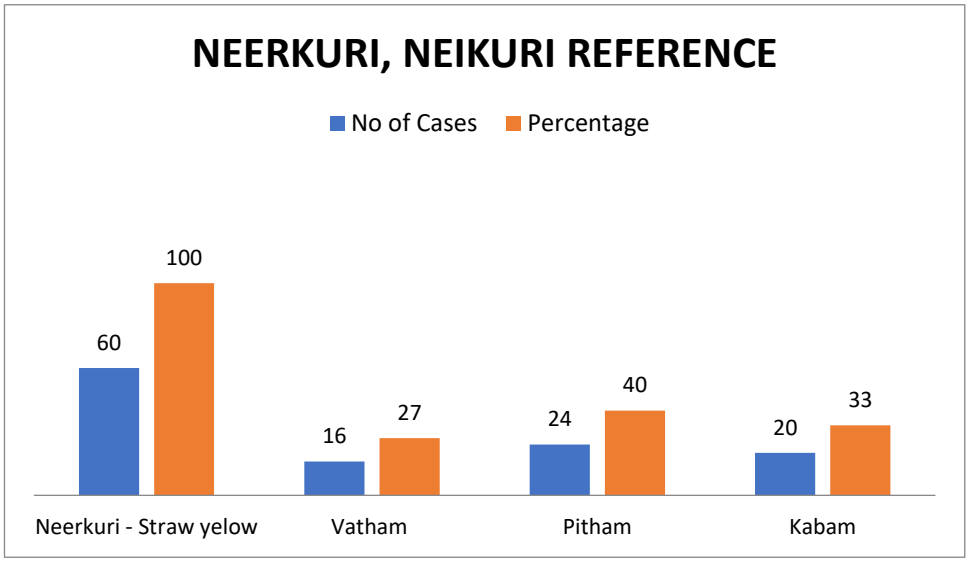
OBSERVATION:

In En vagai thervugal, Niram and sparism were found affected in all the 60 cases. Vizhi was affected in 10% of the cases. The naadi nadai seen in Psoriasis patients were vathapitham 37%, vatha kabam 13% and pitha kabam 50%.

18. NEERKURI, NEIKURI REFERENCE:

Table no :5.42

S.No	Types of Test	No of cases	Percentage
1	Neerkuri: ‘‘Vaikkol niram’’(straw yellow)	60	100%
2	a.(vatham) ‘‘Aravena neelal’’	16	27%
	b.(pitham) ‘‘Aazhi pol paravel’’	24	40%
	c.(kabam) ‘‘Muthuthothu nitral’’	20	33%



OBSERVATION:

Neerkuri showed vaikkol Niram in all the cases. Neikkuri showed vatha kuri among 27%, pitha kuri in 40% and kaba kuri in 33% patients

PASI SCORE:

The body is divided into four sections (head (H) (10% of a person's skin); arms (A) (20%); Trunk (T)(30%); legs(L) (40%). Each of these areas is scored by itself and then the four scores are combined in to the final PASI. For each section, the percent of area of skin involved is estimated and then transformed into a grade from 0 to 6.

- 0% of involved area, grade: 0
- <10% of involved area, grade:1
- 10-29% of involved area,grade:2
- 30-49% of involved area, grade:3
- 50-69% of involved area, grade:4
- 70-89% of involved area, grade:5
- 90-100% of involved area, grade:6

Within each area, the severity is estimated by four clinical signs: The four signs are:

1. Redness(Erythema)
2. Thickness(induration)
3. Scaling (Desquamation)

The area intensity of each sign in each body region is assessed as:
none(0),
mild(1),
moderate(2)
and severe(3).

Table no :5.43

Score	**Indensity of Erythema, Induration, Scaling**
0	None, absent
1	Mild
2	Moderate
3	Severe

Calculations:

For each region, record the intensity for each of four signs and calculate the severity score.

Severe score = Erythema + thickness+ scaling intensity.

For each region, multiple the severity score by the area score and by a multiplier. The multiplier is different for each body site.

Head and neck: severity score x area score x 0.1(in children 0-7 yrs, x 0.2)
Trunk: severity score x area score x 0.3
Upper limb: severity score x area score x 0.2
Lower limb: severity score x area score x 0.4(in children 0-7 yrs, x 0.3)

Add up the total scores for each region to determine the final PASI score.
The minimum PASI score is 0 and the maximum PASI SCORE IS 72

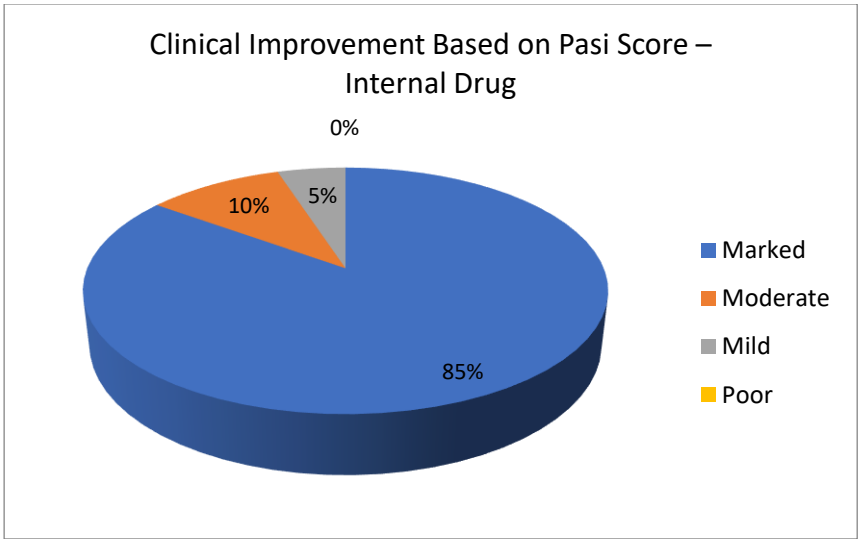
GROUP I MAHA MANJISHTATHI KASHAYAM (INT) PASI SCORE
Table no :5.44

S.No	OP.No	Age /Sex	Initial PASI Score	Post PASI Score	% of reduction in PASI Score
1	8935	52/F	9.8	1.6	83%
2	1437	53/M	22	2.8	87%
3	483	53/M	13.1	0.5	96%
4	473	52/F	19.2	0.9	95%
5	67	58/F	5.3	0	100%
6	1631	55/M	18	0.4	98%
7	3757	48/F	8.4	0.2	97%
8	6164	49/F	31.5	0.7	98%

9	5783	55/F	18.5	0.4	98%
10	1129	36/M	2.6	0	100%
11	8251	28/M	10.4	0.5	95%
12	9493	33/F	2.4	0	100%
13	8262	40/M	20.9	1.2	94%
14	7966	37/M	12	3. 6	70%
15	2125	52/F	23.6	2.4	90%
16	8543	48/F	18.6	1.4	92%
17	8121	34/M	4.8	0	100%
18	7849	58/F	13.8	1.6	88%
19	6906	36/M	26.2	7	73%
20	6430	38/M	10.8	4.5	58%

CLINICAL IMPROVEMENT BASED ON PASI SCORE
PATIENT TREATED WITH MAHA MANJISHTATHI KASHAYAM (INT)
Table no :5.45

S. No	EFFECT OF TRIAL MEDICINE	NO OF PATIENTS	PERCENTAGE %
1	Marked improvement PASI ≥ 75%	17	85%
2	Moderate improvement PASI < 75%	2	10%
3	Mild improvement PASI ≥ 50%	1	5%
4	Poor improvement PASI >25%	NIL	0%
	TOTAL	20	100%



OBSERVATION:

Among the 20 patients treated with internal medicine, 17 out of 20(85%) patients had marked improvement, 2 out of 20(10%) patients had moderate improvement, 1out of 20(5%) patient had mild improvement.

GROUP II PATIENTS TREATED WITH CHEMPARUTHI POO ENNAI (EXT) AND DEEP RELAXATION TECHNIQUE (THERAPY) PASI SCORE

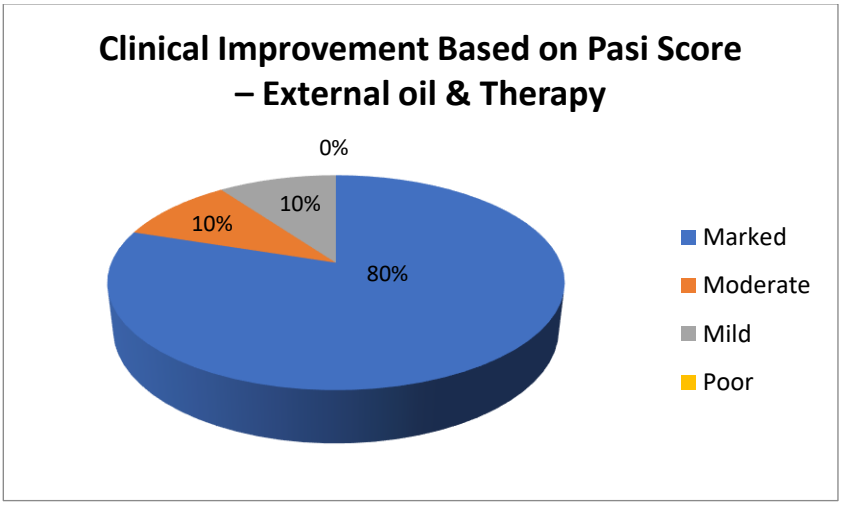
Table no :5.46

S.No	OP.No	Age /Sex	Initial PASI Score	Post PASI Score	% of reduction in PASI Score
1	4314	58/M	14.4	4.4	69%
2	7651	50/F	11	0	100%
3	2497	57/F	4.5	0.4	91%
4	625	53/F	18.8	7.8	49%
5	4752	18/F	5.4	1.2	77%
6	2930	21/F	10.9	1.8	83%
7	3695	42/F	3.6	0	100%
8	4635	24/M	14.5	1.2	92%
9	9502	34/M	4.9	0.2	96%
10	4158	46/M	14	4.4	69%
11	2355	55/M	6	0.7	88%
12	3989	20/M	13.2	2	85%
13	3612	52/M	8.4	1	88%
14	9287	48/F	16.4	8.4	48%
15	6983	37/F	4.5	0	100%
16	8514	37/M	15.8	2.7	83%
17	9039	22/F	7.4	1.2	84%

18	8745	29/M	5.1	0	100%
19	9864	53/M	2.8	0	100%
20	7968	27/M	10.8	2.4	78%

CLINICAL IMPROVEMENT BASED ON PASI SCORE
PATIENT TREATED WITH CHEMPARUTHI POO ENNAI (EXT) & DEEP RELAXATION TECHNIQUE
Table no :5.47

S.No	EFFECT OF TRIAL MEDICINE	NO OF PATIENTS	PERCENTAGE %
1	Marked improvement PASI ≥ 75%	16	80%
2	Moderate improvement PASI < 75%	2	10%
3	Mild improvement PASI ≥ 50%	2	10%
4	Poor improvement PASI >25%	NIL	0%
	TOTAL	20	100%



OBSERVATION:

Among the 20 patients treated with external oil & Deep relaxation technique, 16 out of 20(80%) patients had marked improvement, 2 out of 20(10%) patients had moderate improvement.2 out of 20(10%) patients had mild improvement.

GROUP III - MAHA MANJISHTATHI KASHAYAM (INT),CHEMPARUTHI POO ENNAI (EXT) DEEP RELAXATION TECHNIQUE (THERAPY) PASI SCORE

Table no :5.48

S.No	OP.No	Age /Sex	Initial PASI Score	Post PASI Score	% of reduction in PASI Score
1	7642	17/F	8.4	2	76%
2	7206	34/M	4.8	0	100%
3	3328	27/F	13.2	1.2	91%
4	2118	34/F	4.7	0	100%
5	1044	23/F	10.8	1.6	85%
6	1032	30/F	2.1	0	100%
7	8743	57/M	4.2	0	100%
8	5951	60/M	8.4	1.2	86%
9	7020	29/F	2	0	100%
10	6253	21/F	15.3	4.8	69%
11	3255	27/M	8.3	0	100%
12	4269	38/F	19.3	1.8	91%
13	2984	55/F	3.6	0	100%
14	8659	48/F	15.6	0	100%
15	6563	32/M	11.8	3.2	72%
16	2826	28/F	41.6	4.8	86%
17	2088	43/F	14.4	2.1	85%
18	4189	30/M	2.8	0	100%
19	6727	32/M	19.4	4.1	79%
20	7153	51/M	10.8	0	100%

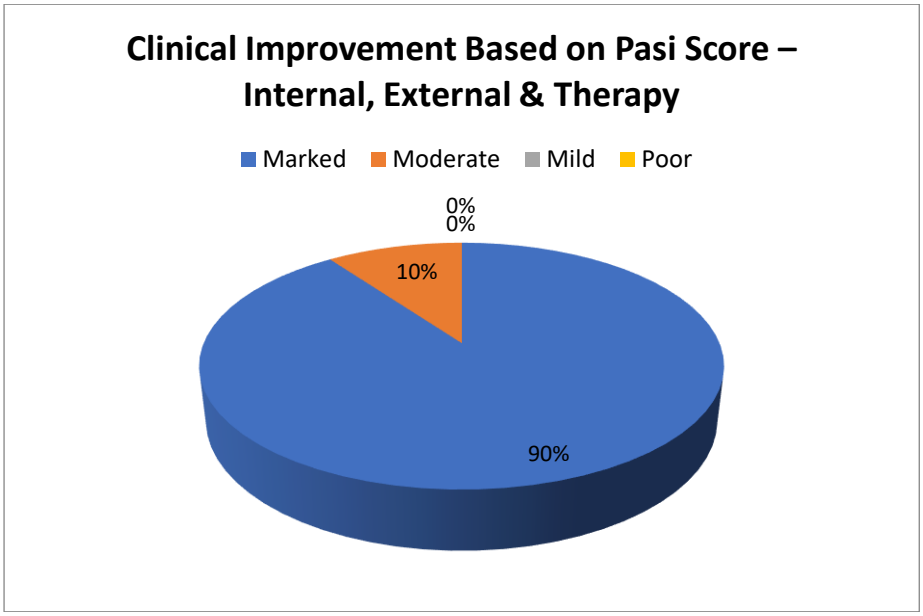
CLINICAL IMPROVEMENT BASED ON PASI SCORE

PATIENT TREATED WITH MAHA MANJISHTATHI KASHAYAM(INT) , CHEMPARUTHI POO ENNAI (EXT) & DEEP RELAXATION TECHNIQUE

Table no :5.49

S.No	EFFECT OF TRIAL MEDICINE	NO OF PATIENTS	PERCENTAGE
1	Marked improvement PASI ≥ 75%	18	90%
2	Moderate improvement PASI < 75%	2	10%
3	Mild improvement PASI ≥ 50%	NIL	0%
4	Poor improvement PASI <25%	NIL	0%
	TOTAL	20	100%

Among the 20 patients treated with Internal, external medicine & deep relaxation technique, 18 out of 20(90%) patients had marked improvement, 2 out of 20(10%) patients had moderate improvement.



CASE REPORT FOR PATIENTS TREATED IN INTERNAL MAHA MANJISHTATHI KASHAYAM

Table no :5.50

S.No	OP.No	Age/ Sex	Initial PASI Score	Post PASI Score	Symptoms Reduced Per weak	Result
1	8935	52/F	9.8	1.6	3	Marked
2	1437	53/M	22	2.8	3	Marked
3	483	53/M	13.1	0.5	3	Marked
4	473	52/F	19.2	0.9	3	Marked
5	67	58/F	5.3	0	3	Marked
6	1631	55/M	18	0.4	3	Marked
7	3757	48/F	8.4	0.2	3	Marked
8	6164	49/F	31.5	0.7	3	Marked
9	5783	55/F	18.5	0.4	3	Marked
10	1129	36/M	2.6	0	3	Marked
11	8251	28/M	10.4	0.5	3	Marked
12	9493	33/F	2.4	0	3	Marked
13	8262	40/M	20.9	1.2	3	Marked
14	7966	37/M	12	3. 6	2	Moderate
15	2125	52/F	23.6	2.4	3	Marked
16	8543	48/F	18.6	1.4	3	Marked
17	8121	34/M	4.8	0	3	Marked
18	7849	58/F	13.8	1.6	1	Mild
19	6906	36/M	26.2	3.5	4	Moderate
20	6430	38/M	10.8	1.9	3	Marked

CASE REPORT PATIENT TREATED IN EXTERNAL CHEMPARUTHI POO ENNAI & DEEP RELAXATION TECHNIQUE

Table no :5.51

S.NO	OP.No	Age/ Sex	Initial PASI Score	Post PASI Score	Symptoms Reduced Per weak	Result
1	4314	58/M	14.4	0.5	3	Marked
2	7651	50/F	11	0	3	Marked
3	2497	57/F	4.5	0.4	3	Marked
4	625	53/F	18.8	4.4	2	Moderate
5	4752	18/F	5.4	1.2	3	Marked
6	2930	21/F	10.9	2.8	3	Marked
7	3695	42/F	3.6	0	3	Marked
8	4635	24/M	14.5	1.2	3	Marked
9	9502	34/M	4.9	0.2	3	Marked
10	4158	46/M	14	4.4	1	Mild
11	2355	55/M	6	0.7	3	Marked
12	3989	20/M	13.2	3.6	3	Marked
13	3612	52/M	8.4	1	3	Marked
14	9287	48/F	16.4	2.2	3	Marked
15	6983	37/F	4.5	0	3	Marked
16	8514	37/M	15.8	2.7	3	Marked
17	9039	22/F	7.4	1.2	3	Marked
18	8745	29/M	5.1	0	3	Marked
19	9864	53/M	2.8	0	3	Marked
20	7968	27/M	10.8	4.4	1	Mild

CASE REPORT PATIENT TREATED IN MAHA MANJISHTATHI KASHAYAM (INT) & CHEMPARUTHI POO ENNAI(EXT) WITH DEEP RELAXATION TECHNIQUE

Table no :5.52

S.No	OP.No	Age/ Sex	Initial PASI Score	Post PASI Score	Symptoms Reduced Per weak	Result
1	7642	17/F	8.4	2	3	Marked
2	7206	34/M	4.8	0	3	Marked
3	3328	27/F	13.2	1.2	3	Marked
4	2118	34/F	4.7	0	3	Marked
5	1044	23/F	10.8	1.6	3	Marked
6	1032	30/F	2.1	0	3	Marked
7	8743	57/M	4.2	0	3	Marked
8	5951	60/M	8.4	1.2	3	Marked
9	7020	29/F	2	0	3	Marked
10	6253	21/F	15.3	4.8	2	Moderate
11	3255	27/M	8.3	0	3	Marked
12	4269	38/F	19.3	1.8	3	Marked
13	2984	55/F	3.6	0	3	Marked
14	8659	48/F	15.6	0	3	Marked
15	6563	32/M	11.8	3.2	3	Marked
16	2826	28/F	41.6	4.8	3	Marked
17	2088	43/F	14.4	2.1	3	Marked
18	4189	30/M	2.8	0	3	Marked
19	6727	32/M	19.4	2.1	3	Marked
20	7153	51/M	10.8	0	3	Marked

COMPARISON IN EFFECT OF TRAIL MEDICINE

GROUP I, II, III USING PASI SCORE

Table no :5.53

S.NO	EFFECT OF TRAIL MEDICINE	NO OF PATIENTS GROUP I	NO OF PATIENTS GROUP II	NO OF PATIENTS GROUP III	% OF THE PASI SCORE
1	**Marked improvement** PASI ≥ 75%	17	16	18	85%
2	**Moderate improvement** PASI< 75%	2	2	2	10%
3	**Mild improvement** PASI ≥ 50%	1	2	NIL	5%
4	**Poor improvement** PASI> 25%	NIL	NIL	NIL	0%

OVERALL RESULT:

IMPROVEMENT IN PSORIASIS:

MARKED IMPROVEMENT - 85%

MODERATE IMPROVEMENT - 10%

MILD IMPROVEMENT-5%.

GROUP I BLOOD ANALYSIS FOR OPD PATIENTS TREATED WITH MAHA MANJISHTATHI KASHAYAM (INT)

Sl. No	OP. NO	AGE/ SEX	Hb (gm)		TC (cu.mm)		DC						ESR				Bl sugar	
							N		L		E		½ hr	1/2 hr	1hr	1hr	R	
			BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	AT	BT	AT	BT	BT	AT
1	8935	52/F	11.8	12.9	7,000	6,810	68	61	25	18	7	5	15	22	35	38	116	120
2	1437	53/M	12.8	12.7	8,000	9,500	65	59	28	16	7	4	8	25	13	39	199	210
3	483	53/M	12.9	13.2	8,200	7,100	60	57	32	21	8	4	7	31	15	56	239	173
4	473	52/F	11.9	10.6	8,000	7,790	59	43	34	23	7	3	10	12	25	28	190	140
5	67	58/F	11.3	11.0	6,900	5,600	69	51	25	19	6	5	12	23	22	31	170	157
6	1631	55/M	13.7	15.8	7,600	8,250	56	42	36	21	8	4	8	13	15	24	103	90
7	3757	48/F	10.7	10.3	8,100	7,270	53	37	41	28	6	4	8	15	16	27	102	98
8	6164	49/F	12.6	11.2	8,700	7,880	71	59	23	21	6	5	10	33	22	41	230	212
9	5783	55/F	12.9	10.7	11,700	9,110	69	61	23	18	8	5	7	19	15	31	185	176
10	1129	36/M	15.4	15.2	9,900	10,300	63	61	31	20	6	4	16	17	24	28	127	78
11	8251	28/M	14.6	16.2	6,200	5,760	60	58	32	27	8	6	7	9	18	21	131	101
12	9493	33/F	12.5	13.1	11,000	10,140	57	51	37	21	6	3	8	11	15	27	190	183
13	8262	40/M	13.5	15.8	8,200	8,180	52	48	39	27	9	5	9	10	16	17	184	152
14	7966	37/M	13.9	14.8	11,300	8,790	63	51	15	12	2	4	12	14	25	21	102	105
15	2125	52/F	12.1	10.6	9,000	7,890	59	50	35	29	6	4	13	11	25	24	160	113
16	8543	48/F	9.8	10.4	6,800	8,500	62	52	30	21	8	6	5	15	12	31	245	227
17	8121	34/M	16.1	16.5	10,400	9,310	64	58	29	20	7	6	5	16	10	30	204	186
18	7849	58/F	13.6	13.9	8,300	7,100	60	52	32	31	8	5	14	12	26	29	108	74
19	6906	36/M	13.3	13.1	7,400	6,770	61	58	33	27	6	5	12	12	22	28	92	105
20	6430	38/M	14.5	16.8	6,800	5,450	61	43	31	22	8	4	8	13	12	26	175	119

LAB INVESTIGATIONS - GROUP II- BLOOD ANALYSIS FOR RESULTS AND OBSRVATION 2018

PATIENTS TREATED WITH CHEMPARUTHI POO ENNAI AND DEEP RELAXATION TECHNIQUE

Sl. No	OP. NO	AGE/SEX	Hb (gm)		TC (cu.mm)		DC						ESR				Bl sugar	
							N		L		E		½ hr	1/2 hr	1hr	1hr	R	
			BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
1	4314	58/M	13.3	16.1	7,400	6,810	62	54	29	20	9	6	6	4	18	12	158	172
2	7651	50/F	11.3	13.0	8,600	8,840	57	54	34	30	9	6	10	12	22	26	250	216
3	2497	57/F	12.0	13.2	9,000	8,660	68	61	28	29	4	2	16	18	32	27	98	110
4	625	53/F	12.5	12.0	8,700	7,600	62	58	32	39	6	5	8	13	20	24	91	101
5	4752	18/F	12.4	13.7	11,200	9,300	65	52	29	23	6	4	10	12	25	16	81	120
6	2930	21/F	11.8	12.1	10,000	9,100	52	48	43	31	5	6	7	15	18	30	78	98
7	3695	42/F	10.3	12.0	9,200	9,300	73	67	23	22	4	2	23	22	40	38	96	128
8	4635	24/M	13.5	14.9	10,200	9,800	60	43	28	19	9	6	10	28	20	35	140	119
9	9502	34/M	14.1	15.3	11,000	10,400	71	57	32	24	8	5	8	10	16	22	180	199
10	4158	46/M	13.8	13.1	8,900	8,100	58	39	27	21	7	4	5	13	10	24	176	132
11	2355	55/M	12.9	13.4	9,200	9,300	64	54	21	18	8	6	9	9	16	18	154	120
12	3989	20/M	16.2	15.8	10,100	7,900	59	56	31	39	6	5	5	8	12	21	116	98
13	3612	52/M	13.8	14.3	8,300	8,100	64	58	29	25	7	6	17	16	27	48	146	178
14	9287	48/F	10.1	11.3	9,320	9,400	55	41	32	29	5	4	13	8	20	12	128	140
15	6983	37/F	9.9	10.8	8,900	9,300	52	61	40	28	6	5	10	11	18	26	132	152
16	8514	37/M	14.2	15.1	11,100	8,400	54	32	38	32	7	6	24	27	38	42	154	168
17	9039	22/F	9.8	10.0	7,500	7,100	58	57	37	36	5	5	48	31	69	62	124	114
18	8745	29/M	13.8	13.7	9,800	9,300	53	55	39	41	8	4	10	16	24	21	97	104
19	9864	53/M	14.5	16.1	8,200	7,300	63	51	31	34	7	5	12	19	28	47	132	116
20	7968	27/M	13.2	13.4	8,400	8,200	67	58	37	33	5	4	18	14	30	23	130	126

LAB INVESTIGATIONS - GROUP III- BLOOD ANALYSIS FOR PATIENTS TREATED WITH INTERNAL AND EXTERNAL THERAPY

RESULTS AND OBSRVATION

Sl. No	OP. NO	AGE/SEX	Hb (gm)		TC (cu.mm)		DC						ESR				Blood sugar	
							N		L		E		½ hr	1/2 hr	1hr	1hr	R	
			BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
1	7642	17/F	12.5	11.3	8,200	8,100	65	58	41	28	4	5	18	14	25	21	121	96
2	7206	34/M	11.6	11.9	11,200	9,400	61	60	32	36	6	4	24	16	32	26	132	140
3	3328	27/F	10.8	11.2	6,400	6,900	56	52	38	36	6	5	9	8	15	11	110	98
4	2118	34/F	10.3	10.1	8,500	7,900	59	58	39	40	5	4	22	18	38	27	125	101
5	1044	23/F	11.4	12.2	9,400	9,600	68	62	28	30	6	3	10	7	22	13	120	74
6	1032	30/F	11.2	10.8	8,200	7,500	57	59	32	29	6	7	12	8	22	18	122	148
7	8743	57/M	14.5	14.2	7,800	9,300	63	55	27	21	8	6	14	10	26	21	105	130
8	5951	60/M	10.6	12.3	9,100	8,200	58	53	37	33	7	5	23	12	40	25	134	123
9	7020	29/F	10.7	11.1	10,000	9,400	56	60	42	39	7	5	12	10	26	20	90	99
10	6253	21/F	12.4	12.1	10,200	10,300	63	61	31	34	6	5	23	19	55	31	102	108
11	3255	27/M	14.1	14.4	9,400	8,600	64	58	38	38	5	4	24	20	43	27	130	126
12	4269	38/F	11.6	11.9	6,800	7,000	57	56	37	39	6	5	14	8	36	32	110	98
13	2984	55/F	12.7	12.5	7,200	7,300	70	68	25	28	5	4	8	6	16	12	125	96
14	8659	48/F	12.8	11.3	9,220	8,400	61	59	32	34	8	6	24	20	34	10	99	110
15	6563	32/M	10.7	10.9	9,200	9,300	73	71	21	24	6	5	11	8	22	16	128	112s
16	2826	28/F	11.3	11.1	8,100	8,400	55	62	38	32	7	6	15	12	32	28	119	124
17	2088	43/F	10.8	11.0	7,500	7,100	58	57	37	36	5	5	23	19	52	38	154	101
18	4189	30/M	13.5	13.7	9,600	9,800	53	55	39	41	8	4	7	6	14	9	97	104
19	6727	32/M	12.4	12.1	10,200	10,300	63	61	31	34	6	5	12	10	36	26	102	79
20	7153	51/M	14.1	13.4	8,400	8,200	67	58	28	38	5	4	13	11	29	21	160	148

RESULTS AND OBSERVATIONS

URINE ANALYSIS : GROUP I URINE ANALYSIS FOR OPD PATIENTS TREATED WITH MAHA MANJISHTATHI KASHAYAM (INT)

S.NO	OP.NO	AGE/SEX	URINE ANALYSIS BEFORE TREATMENT				URINE ANALYSIS AFTER TREATMENT			
			ALBUMIN	SUGAR	DEPOSITS		ALBUMIN	SUGAR	DEPOSITS	
					PUS CELLS	EPITHELIAL CELLS			PUS CELLS	EPITHELIAL CELLS
1	8935	52/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
2	1437	53/M	NIL	NIL	NIL	2-3	NIL	NIL	0-1	NIL
3	483	53/M	NIL	NIL	1-2	NIL	NIL	NIL	1-2	NIL
4	473	52/F	NIL	NIL	NIL	1-3	NIL	NIL	NIL	1-2
5	67	58/F	NIL	NIL	1-3	NIL	NIL	NIL	1-3	2-3
6	1631	55/M	NIL	NIL	0-1	0-2	NIL	NIL	NIL	NIL
7	3757	48/F	NIL	NIL	NIL	4-6	NIL	NIL	2-4	0-1
8	6164	49/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
9	5783	55/F	NIL	NIL	NIL	2-3	NIL	NIL	2-3	0-1
10	1129	36/M	NIL	NIL	0-4	NIL	NIL	NIL	1-3	NIL
11	8251	28/M	NIL	NIL	NIL	3-4	NIL	NIL	NIL	NIL
12	9493	33/F	NIL	NIL	NIL	NIL	NIL	NIL	0-3	NIL
13	8262	40/M	NIL	NIL	0-1	1-2	NIL	NIL	0-2	NIL
14	7966	37/M	NIL	NIL	2-3	NIL	NIL	NIL	NIL	NIL
15	2125	52/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	1-2
16	8543	48/F	NIL	NIL	1-3	1-2	NIL	NIL	NIL	1-2
17	8121	34/M	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
18	7849	58/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	2-3
19	6906	36/M	NIL	NIL	NIL	0-1	NIL	NIL	0-1	NIL
20	6430	38/M	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

RESULTS AND OBSERVATIONS

GROUP II URINE ANALYSIS FOR OPD PATIENTS TREATED WITH CHEMPARUTHI POO ENNAI (EXT) AND DEEP RELAXATION TECHNIQUE (THERAPY)

S.NO	OP.NO	AGE/SEX	URINE ANALYSIS BEFORE TREATMENT				URINE ANALYSIS AFTER TREATMENT			
			ALBUMIN	SUGAR	DEPOSITS		ALBUMIN	SUGAR	DEPOSITS	
					PUS CELLS	EPITHELIAL CELLS			PUS CELLS	EPITHELIAL CELLS
1.	4314	58/M	NIL	NIL	NIL	0-3	NIL	NIL	2-3	NIL
2.	7651	50/F	NIL	NIL	0-1	NIL	NIL	NIL	2-3	NIL
3.	2497	57/F	NIL	NIL	NIL	1-3	NIL	NIL	NIL	2-3
4.	625	53/F	NIL	NIL	2-4	NIL	NIL	NIL	2-3	NIL
5.	4752	18/F	NIL	NIL	2-3	1-3	NIL	NIL	NIL	1-3
6.	2930	21/F	NIL	NIL	NIL	0-1	NIL	NIL	1-2	NIL
7.	3695	42/F	NIL	NIL	2-5	NIL	NIL	NIL	NIL	NIL
8.	4635	24/M	NIL	NIL	NIL	3-5	NIL	NIL	NIL	0-1
9.	9502	34/M	NIL	NIL	1-3	NIL	NIL	NIL	3-5	NIL
10.	4158	46/M	NIL	NIL	1-4	0-4	NIL	NIL	NIL	0-4
11.	2355	55/M	NIL	NIL	NIL	NIL	NIL	NIL	3-4	NIL
12	3989	20/M	NIL	NIL	1-3	2-4	NIL	NIL	NIL	NIL
13	3612	52/M	NIL	NIL	0-2	0-1	NIL	NIL	1-2	0-1
14	9287	48/F	NIL	NIL	NIL	2-3	NIL	NIL	NIL	2-3
15	6983	37/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
16	8514	37/M	NIL	NIL	2-3	1-3	NIL	NIL	1-2	1-3
17	9039	22/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
18	8745	29/M	NIL	NIL	2-3	NIL	NIL	NIL	1-2	NIL
19	9864	53/M	NIL	NIL	0-1	NIL	NIL	NIL	NIL	2-3
20	7968	27/M	NIL	NIL	3-4	NIL	NIL	NIL	0-1	NIL

RESULTS AND OBSERVATIONS

GROUP III URINE ANALYSIS - TRAETED WITH MAHAMANJISTATHI KASHAYAM, CHEMPARUTHI POO ENNAI (EXT), DEEP RELAXATION TECHNIQUE

S.NO	OP.NO	AGE/SEX	URINE ANALYSIS BEFORE TREATMENT				URINE ANALYSIS AFTER TREATMENT			
			ALBUMIN	SUGAR	DEPOSITS		ALBUMIN	SUGAR	DEPOSITS	
					PUS CELLS	EPITHELIAL CELLS			PUS CELLS	EPITHELIA L CELLS
1	7642	17/F	NIL	NIL	2-4	NIL	NIL	NIL	2-3	3-4
2	7206	34/M	NIL	NIL	1-3	2-4	NIL	NIL	2-3	1-4
3	3328	27/F	NIL	NIL	0-2	0-1	NIL	NIL	NIL	0-3
4	2118	34/F	NIL	NIL	NIL	2-3	NIL	NIL	2-3	NIL
5	1044	23/F	NIL	NIL	NIL	NIL	NIL	NIL	NIL	1-3
6	1032	30/F	NIL	NIL	2-3	1-3	NIL	NIL	1-2	NIL
7	8743	57/M	NIL	NIL	NIL	NIL	NIL	NIL	0-2	4-5
8	5951	60/M	NIL	NIL	3-5	NIL	NIL	NIL	NIL	NIL
9	7020	29/F	NIL	NIL	0-1	NIL	NIL	NIL	3-4	NIL
10	6253	21/F	NIL	NIL	3-4	NIL	NIL	NIL	NIL	2-4
11	3255	27/M	NIL	NIL	2-3	3-5	NIL	NIL	NIL	1-3
12	4269	38/F	NIL	NIL	2-3	NIL	NIL	NIL	2-3	NIL
13	2984	55/F	NIL	NIL	NIL	2-3	NIL	NIL	1-2	1-3
14	8659	48/F	NIL	NIL	2-3	NIL	NIL	NIL	2-4	NIL
15	6563	32/M	NIL	NIL	NIL	1-3	NIL	NIL	2-3	1-3
16	2826	28/F	NIL	NIL	1-2	NIL	NIL	NIL	NIL	0-1
17	2088	43/F	NIL	NIL	4-6	NIL	NIL	NIL	2-5	NIL
18	4189	30/M	NIL	NIL	NIL	NIL	NIL	NIL	NIL	3-5
19	6727	32/M	NIL	NIL	3-5	NIL	NIL	NIL	1-3	NIL
20	7153	51/M	NIL	NIL	NIL	0-4	NIL	NIL	0-3	1-4

RESULTS AND OBSERVATIONS

LIVER FUNCTION TEST

GROUP I LFT - MAHA MANJISHTADHI KASHAYAM (INT)

S.NO	OP.NO	AGE/ SEX	LIVER FUNCTION TEST – BEFORE TREATMENT				LIVER FUNCTION TEST – AFTER TREATMENT			
			TOTAL BILURUBIN	SGOTT	SGPT	SERUM ALKALINE PHOSPHATASE	TOTAL BILURUBIN	SGOT	SGPT	SERUM ALKALINE PHOSPHATASE
1.	8935	52/F	0.7	26.1	28.1	87	0.6	25.3	31.3	85
2.	1437	53/M	0.8	21.5	22.3	72	0.5	29.2	27	69
3.	483	53/M	0.5	26.2	24.0	86	0.7	14	16	72
4.	473	52/F	0.7	34	13	82	0.6	36	19	76
5.	67	58/F	0.7	21.6	20.1	97	0.6	20.9	29	73
6.	1631	55/M	0.7	20.5	14.9	104	0.5	13	16	91
7.	3757	48/F	0.6	19.3	14.6	96	0.5	23.1	19	82
8.	6164	49/F	0.7	14.1	13.4	85	0.6	12	20	77
9.	5783	55/F	0.6	18	23	79	0.8	13	22	91
10.	1129	36/M	0.6	17	18	101	0.7	10	18	105
11.	8251	28/M	0.8	23.5	28.9	97	0.7	21.1	30.8	66
12	9493	33/F	0.6	20	14	69	0.5	18	24	74
13	8262	40/M	0.5	29	31	91	0.4	25	33	89
14	7966	37/M	0.6	35	28	78	0.6	20	19.2	71
15	2125	52/F	0.7	44.7	48.1	92	0.5	36	36.4	75
16	8543	48/F	0.7	15.9	14.1	95	0.6	23	19	89
17	8121	34/M	0.7	18.6	28	75	0.7	15	23	68
18	7849	58/F	0.8	27.1	26.0	72	0.6	26	20.9	61
19	6906	36/M	0.6	21.0	19.2	65	0.5	28	17	83
20	6430	38/M	0.7	22.0	21.0	90	0.7	14	18.3	77

GROUP II –LFT- CHEMPARUTHI POO ENNAI (EXT) & DEEP RELAXATION TECHNIQUE (THERAPY)

			LIVER FUNCTION TEST – BEFORE TREATMENT	LIVER FUNCTION TEST – AFTER TREATMENT

RESULTS AND OBSERVATIONS

S.NO	OP.NO	AGE/SEX	TOTAL BILURUBIN	SGOT	SGPT	SERUM ALKALINE PHOSPHATASE	TOTAL BILURUBIN	SGOT	SGPT	SERUM ALKALINE PHOSPHATASE
1.	4314	58/M	0.9	18.6	22.4	62	0.7	19	21.8	58
2.	7651	50/F	0.4	28	12	59	0.6	32	23.3	74
3.	2497	57/F	0.4	23	15	51	0.5	21	17	55
4.	625	53/F	0.6	11	10	48	0.6	18	14	36
5.	4752	18/F	0.53	18.4	18.3	65	0.4	20.3	19.7	71
6.	2930	21/F	0.5	30.1	21.2	54	0.5	25.2	21.6	49
7.	3695	42/F	0.7	16.9	9.4	46	0.4	20.1	11.9	52
8.	4635	24/M	0.8	17.3	21.1	61	0.7	16.8	18	43
9.	9502	34/M	0.6	31.4	36.4	78	0.8	29	32.8	80
10.	4158	46/M	0.7	21.3	18.4	95	0.3	18.9	15.7	78
11.	2355	55/M	0.5	34	16	59	0.4	25	18	49
12	3989	20/M	0.7	19.8	13.1	43	0.6	15.4	30.1	51
13	3612	52/M	0.7	32.2	37.1	55	0.5	32	35.0	64
14	9287	48/F	0.9	15.9	14.1	92	0.9	21	24	102
15	6983	37/F	0.5	30.3	26	79	0.5	26.7	18.9	88
16	8514	37/M	0.7	24.5	18.0	53	0.6	20	15.1	58
17	9039	22/F	0.6	29.3	21	74	0.5	30.9	27	49
18	8745	29/M	0.4	32	19	54	0.6	26	12	54
19	9864	53/M	0.8	28.4	27	71	0.5	32	25.8	68
20	7968	27/M	0.5	40	40	61	0.4	34	34	56

GROUP III –LFT-CHEMPARUTHI POO ENNAI (EXT) & DEEP RELAXATION TECHNIQUE (THERAPY)

RESULTS AND OBSERVATIONS

S.NO	OP.NO	AGE/SEX	LIVER FUNCTION TEST – BEFORE TREATMENT				LIVER FUNCTION TEST – AFTER TREATMENT			
			TOTAL BILURUBIN	SGOT	SGP T	SERUM ALKALINE PHOSPHATASE	TOTAL BILURUBIN	SGOT	SGPT	SERUM ALKALINE PHOSPHATASE
1.	7642	17/F	0.4	28	21	48	0.6	21	29.5	52
2.	7206	34/M	0.8	29.0	31.0	76	0.8	32	29.6	79
3.	3328	27/F	0.9	22	19	63	0.5	25	17	57
4.	2118	34/F	0.4	14.9	9.8	35	0.9	20	15	32
5.	1044	23/F	0.9	25.4	29	71	1.0	22.3	21.6	80
6.	1032	30/F	0.5	18.5	16	52	0.57	20.5	19.2	46
7.	8743	57/M	0.4	24.5	27.3	76	0.4	20.1	16.8	69
8.	5951	60/M	0.6	17.3	19.1	53	0.7	19.8	21	41
9.	7020	29/F	1.0	28.4	22	98	0.68	17	18.8	88
10.	6253	21/F	0.3	19.4	19.3	92	0.37	16.2	17.5	82
11.	3255	27/M	0.7	34	16	59	0.58	25	18	49
12	4269	38/F	0.6	21.3	15	41	0.4	19	12	56
13	2984	55/F	0.5	29	19	75	0.53	22	18.3	73
14	8659	48/F	0.7	26.9	20	102	0.6	21	23	100
15	6563	32/M	0.4	30.2	26.9	62	0.5	28	23.4	88
16	2826	28/F	0.5	18.4	21.0	61	0.4	20	19.5	78
17	2088	43/F	0.4	21.3	18.9	55	0.5	17.2	21	41
18	4189	30/M	0.6	32	17.5	64	0.6	26	15.8	72
19	6727	32/M	0.5	32	20.7	62	0.4	29	23	62
20	7153	51/M	0.5	19.3	14.6	71	0.5	20.5	14.9	66

RENAL FUNCTION TEST

GROUP I RENAL FUNCTION TEST FOR OPD PATIENTS TREATED WITH MAHA MANJISHTATHI KASHAYAM (INT)

RESULTS AND OBSERVATIONS

S.NO	OP NO	AGE/SEX	UREA	CREATININE	UREA	CREATININE
1	8935	52/F	26	24	23	22
2	1437	53/M	32	19	26	20
3	483	53/M	28	35	24	23
4	473	52/F	22	20	21	18
5	67	58/F	22	20	20	21
6	1631	55/M	20	18	18	20
7	3757	48/F	26	28	23	22
8	6164	49/F	27	24	18	22
9	5783	55/F	28	30	25	21
10	1129	36/M	26	26	20	23
11	8251	28/M	0.5	0.5	0.5	0.4
12	9493	33/F	0.7	0.5	0.7	0.5
13	8262	40/M	0.8	0.5	0.6	0.5
14	7966	37/M	0.4	0.4	0.3	0.6
15	2125	52/F	0.5	0.5	0.5	0.6
16	8543	48/F	0.5	0.5	0.4	0.5
17	8121	34/M	0.4	0.5	0.7	0.4
18	7849	58/F	0.7	0.5	0.3	0.4
19	6906	36/F	0.7	0.7	0.3	0.5
20	6430	38/M	0.5	0.7	0.3	0.4

GROUP II RENAL FUNCTION TEST FOR OPD PATIENTS TREATED WITH CHEMPARUTHI POO ENNAI(EXT) AND DEEP RELAXATION TECHNIQUE (THERAPY)

RESULTS AND OBSERVATIONS

S.NO	OP NO	AGE/SEX	UREA	CREATININE	UREA	CREATININE
1	4314	58/M	28	0.9	20	0.5
2	7051	50/F	18	0.3	21	0.4
3	2497	57/F	24	0.5	22	0.5
4	625	53/F	24	0.4	27	0.5
5	4752	18/F	24	0.8	23	0.4
6	2930	21/F	18	0.4	20	0.6
7	3695	42/F	18	0.4	18	0.5
8	4635	24/M	28	0.5	25	0.5
9	9502	34/M	26	0.6	22	0.6
10	4158	46/M	20	0.7	18	0.4
11	2355	55/M	24	0.4	25	0.4
12	3989	20/M	22	0.4	20	0.3
13	3612	52/M	30	0.8	26	0.5
14	9287	48/F	17	0.8	19	0.6
15	6983	37/F	19	0.6	23	0.6
16	8514	37/M	28	0.6	25	0.4
17	9039	22/F	30	0.7	26	0.3
18	8745	29/M	16	0.8	20	0.4
19	9864	53/M	21	0.6	20	0.5
20	7968	27/M	29	0.8	27	0.4

GROUP III RENAL FUNCTION TEST FOR OPD PATIENTS TREATED WITH MAHA MANJISHTATHI KASHAYAM CHEMPARUTHI POO ENNAI(EXT) AND DEEP RELAXATION TECHNIQUE (THERAPY)

RESULTS AND OBSERVATIONS

S.NO	OP NO	AGE/SEX	UREA	CREATININE	UREA	CREATININE
1	7642	17/F	17	0.7	21	0.4
2	7206	34/M	23	0.4	20	0.5
3	3328	27/F	28	0.5	23	0.3
4	2118	34/F	21	0.5	23	0.5
5	1044	23/F	24	0.6	20	0.5
6	1032	30/F	14	0.4	18	0.6
7	8743	57/M	18	0.8	15	0.4
8	5951	60/M	21	0.5	23	0.5
9	7020	29/F	15	0.6	17	0.7
10	6253	21/F	24	0.7	19	0.5
11	3255	27/M	29	0.5	24	0.4
12	4269	38/F	23	0.4	20	0.3
13	2984	55/F	17	0.8	22	0.4
14	8659	48/F	24	0.6	20	0.4
15	6563	32/M	19	0.7	21	0.3
16	2826	28/F	25	0.6	19	0.4
17	2088	43/F	14	0.7	18	0.3
18	4189	30/M	18	0.8	20	0.4
19	6727	32/M	17	0.5	15	0.5
20	7153	51/M	21	0.6	25	0.3

PASI SCORE

GROUP I MAHA MANJISHTATHI KASHAYAM (INT) PASI SCORE

RESULTS AND OBSERVATIONS

S.NO	OP.NO	AGE /SEX	INITIAL PASI SCORE	POST PASI SCORE
1	8935	52/F	9.8	1.6
2	1437	53/M	22	2.8
3	483	53/M	13.1	0.5
4	473	52/F	19.2	0.9
5	67	58/F	5.3	0
6	1631	55/M	18	0.4
7	3757	48/F	8.4	0.2
8	6164	49/F	31.5	0.7
9	5783	55/F	18.5	0.4
10	1129	36/M	2.6	0
11	8251	28/M	10.4	0.5
12	9493	33/F	2.4	0
13	8262	40/M	20.9	1.2
14	7966	37/M	12	3. 6
15	2125	52/F	23.6	2.4
16	8543	48/F	18.6	1.4
17	8121	34/M	4.8	0
18	7849	58/F	13.8	1.6
19	6906	36/M	26.2	3.5
20	6430	38/M	10.8	1.9

GROUP II - CHEMPARUTHI POO ENNAI (EXT) AND DEEP RELAXATION TECHNIQUE (THERAPY) PASI SCORE

RESULTS AND OBSERVATIONS

S.No	OP.No	Age /Sex	Initial PASI Score	Post PASI Score
1	4314	58/M	14.4	0.5
2	7651	50/F	11	0
3	2497	57/F	4.5	0.4
4	625	53/F	18.8	4.4
5	4752	18/F	5.4	1.2
6	2930	21/F	10.9	2.8
7	3695	42/F	3.6	0
8	4635	24/M	14.5	1.2
9	9502	34/M	4.9	0.2
10	4158	46/M	14	4.4
11	2355	55/M	6	0.7
12	3989	20/M	13.2	3.6
13	3612	52/M	8.4	1
14	9287	48/F	16.4	2.2
15	6983	37/F	4.5	0
16	8514	37/M	15.8	2.7
17	9039	22/F	7.4	1.2
18	8745	29/M	5.1	0
19	9864	53/M	2.8	0
20	7968	27/M	10.8	4.4

GROUP III – MAHA MANJISHTATHI KASHAYAM ,CHEMPARUTHI POO ENNAI (EXT) DEEP RELAXATION TECHNIQUE (THERAPY) PASI SCORE

RESULTS AND OBSERVATIONS

S.No	OP.No	Age /Sex	Initial PASI Score	Post PASI Score
1	7642	17/F	8.4	2
2	7206	34/M	4.8	0
3	3328	27/F	13.2	1.2
4	2118	34/F	4.7	0
5	1044	23/F	10.8	1.6
6	1032	30/F	2.1	0
7	8743	57/M	4.2	0
8	5951	60/M	8.4	1.2
9	7020	29/F	2	0
10	6253	21/F	15.3	4.8
11	3255	27/M	8.3	0
12	4269	38/F	19.3	1.8
13	2984	55/F	3.6	0
14	8659	48/F	15.6	0
15	6563	32/M	11.8	3.2
16	2826	28/F	41.6	4.8
17	2088	43/F	14.4	2.1
18	4189	30/M	2.8	0
19	6727	32/M	19.4	2.1
20	7153	51/M	10.8	0

STATISTICAL ANALYSIS

CLINICAL FEATURESIMPROVEMENT IN PATIENTS TREATED WITH MAHA MANJISHTATHI KASHAYAM (INT) - GROUP I PATIENTS

RESULTS AND OBSERVATIONS

The most popular non parametric statistical tool, namely, McNemar Test analysis has been employed to analyses the effectiveness with the help of a hypothesis.

IMPROVEMENT OF GROUP I SUBJECTS:

S. No	Clinical features	Before Treatment	After Treatment
		n%	n%
1.	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	20(100)	1(5)**
2.	ITCHING	12(60)	0(0)**
3.	SCALP LESION	5(25)	1(5)*
4.	AUSPITZ SIGN	17(85)	1(5)**
5.	CANDLE GREASE SIGN	4(20)	0(0)*
6.	KOBNER'S PHENOMENON	6(30)	0(0)**
7.	NAIL CHANGES	2(10)	0(0)*
8.	PALM AND SOLE LESIONS	11(55)	3(15)**
9.	JOINT INVOLVEMENT	0(0)	0(0)

McNemat test, C.I: 95%, *P<0.05; **P<0.01

Software: spss17 version
Number of cases: 20

Inference:

Since the p value is significant in all clinical featuresexcept joint involvement.So there is significant reducing of clinical features among the patients for the treatment of ThadippuPerunoi (Psoriasis).Hence it is concluded that the treatment was effectiveand **significant.**

GROUP II PATIENTS - IMPROVEMENT IN PATIENTS TREATED WITH CHEMPARUTHI POO ENNAI (EXT), DEEP RELAXATION THERAPY

RESULTS AND OBSERVATIONS

The most popular non parametric statistical tool, namely, McNemar Test analysis has been employed to analyses the effectiveness with the help of a hypothesis.

IMPROVE MENT OF GROUP II SUBJECTS:

S. No	Clinical features	Before Treatment	After Treatment
		n%	n%
1.	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	20(100)	5(25)**
2.	ITCHING	17(85)	8(40)**
3.	SCALP LESION	8(40)	3(15)*
4.	AUSPITZ SIGN	10(50)	4(20)**
5.	CANDLE GREASE SIGN	6(30)	1(5)**
6.	KOBNER'S PHENOMENON	3(15)	2(10)*
7.	NAIL CHANGES	3(15)	2(10)*
8.	PALM AND SOLE LESIONS	9(45)	5(25)*
9.	JOINT INVOLVEMENT	1(5)	1(5)

McNemat test, C.I: 95%, *P<0.05; **P<0.01

Software: spss17 version

Number of cases: 20

Inference:

Since the p value is significant in all clinical featuresexcept joint involvement.So there is significant reducing of clinical features among the patients for the treatment of ofThadippuPerunoi (Psoriasis).Hence it is concluded that the treatment was effectiveand **significant.**

GROUP III – IMPROVEMENT IN CLINICAL FEATURES

The most popular non parametric statistical tool, namely, McNemar Test analysis has been employed to analyses the effectiveness with the help of a hypothesis.

RESULTS AND OBSERVATIONS

S. No	Clinical features	Before Treatment	After Treatment
		n%	n%
1.	ERYTHEMATOUS PATCHES WITH WHITE SILVERY SCALES	13	0
2.	ITCHING	9(45)	0(0)**
3.	SCALP LESION	11(55)	0(0)**
4.	AUSPITZ SIGN	4(20)	2(10)*
5.	CANDLE GREASE SIGN	8(40)	0(0)**
6.	KOBNER'S PHENOMENON	4(20)	1(5)*
7.	NAIL CHANGES	12(60)	2(10)**
8.	PALM AND SOLE LESIONS	2(10)	3(15)*
9.	JOINT INVOLVEMENT	13(65)	1(5)**

McNemat test, C.I: 95%, *P<0.05; **P<0.01

Software: spss17 version

Number of cases: 20

Inference:

Since the p value is significant in all clinical features.So there is significant reducing of clinical features among the patients for the treatment of ofThadippuPerunoi (Psoriasis).Hence it is concluded that the treatment was effectiveand **significant.**

Group I Subjects :Liver Function Test

S.No.	Investigations	Before Treatment	After Treatment	P value

RESULTS AND OBSERVATIONS

		Mean±SD n= 20	Mean±SD n= 20	
2	SGPT	22.48±8.43	22.94±6.15	**0.735**
3	SGOT	23.75±7.41	21.13±7.63	**0.073**
4	Alkaline Phosphatase	85.65±11.28	78.70±10.62	**<0.05**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

Group II Subjects :Liver Function Test

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
2	SGPT	20.77±8.74	21.78±7.12	**0.479**
3	SGOT	25.12±7.51	25.12±7.51	**0.331**
4	Alkaline Phosphatase	63.00±14.43	61.75±16.32	**0.609**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

Group IIISubjects :Liver Function Test

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
2	SGPT	20.15±5.18	19.74±4.48	**0.671**
3	SGOT	24.59±5.65	22.08±4.18	**<0.05**
4	Alkaline Phosphatase	65.80±17.53	65.55±18.44	**0.918**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP I SUBJECTS :RFT

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	Urea	24.70±3.25	20.55±4.26	**<0.001**
2	Creatinine	0.69±0.13	0.58±0.11	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP II SUBJECTS :RFT

S.No.	Investigations	Before	After	P value

RESULTS AND OBSERVATIONS

		Treatment Mean±SD n= 20	Treatment Mean±SD n= 20	
1	Urea	23.20±4.65	22.35±2.99	**0.606**
2	Creatinine	0.60±0.18	0.46±0.09	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP IIISUBJECTS :RFT

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	Urea	20.60±4.38	20.15±2.73	**0.398**
2	Creatinine	0.59±0.13	0.43±0.10	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP I SUBJECTS:BLOOD INVESTIGATION

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	Hb	12.99±1.53	13.24±2.27	**0.398**
2	ESR1hr	29.85±8.56	19.15±6.33	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP II SUBJECTS:BLOOD INVESTIGATION

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	Hb	12.67±1.72	13.46±1.75	**<0.001**
2	ESR1 hr	28.70±13.00	25.15±12.98	**0.106**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP III SUBJECTS:BLOOD INVESTIGATION

RESULTS AND OBSERVATIONS

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	Hb	12.00±1.29	11.97±1.17	**0.872**
2	ESR1 hr	30.75±11.36	29.90±9.86	**0.639**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

PASI SCORE

GROUP I SUBJECTS:

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	PASI Score	14.73±8.26	1.05±1.02	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

GROUP II SUBJECTS:

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	PASI Score	9.62±4.95	1.54±1.61	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

RESULTS AND OBSERVATIONS

GROUP III SUBJECTS:

S.No.	Investigations	Before Treatment Mean±SD n= 20	After Treatment Mean±SD n= 20	P value
1	PASI Score	11.08±9.30	1.41±1.70	**<0.001**

C.I: 95%; Paired samples t test. Where p<0.001, p<0.05 represents statistically significant.

Since the P value is highly significant (<0.001) in 3 groups. So there is significant reducing of PASI Score among the patients for the treatment of ThadippuPerunoi (Psoriasis).Hence it is concluded that the treatment was effective **and significant.**

CLINICAL IMPROVEMRNT PHOTOS

OP.NO : 6430

RESULTS AND OBSERVATIONS

AGE/SEX: 38/ Male

BEFORE TREATMENT
Passi Score 10.8

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AFTER TREATMENT
Passi Score : 0

CLINICAL IMPROVEMRNT PHOTOS

RESULTS AND OBSERVATIONS

OP.NO : 6983

AGE/SEX: 37/ Female

BEFORE TREATMENT
Passi Score : 4.5

AFTER TREATMENT
Passi Score : 0

CLINICAL IMPROVEMRNT PHOTOS

RESULTS AND OBSERVATIONS

OP.NO : 7153

AGE/SEX: 51/ Male

BEFORE TREATMENT
Passi Score : 3.6

AFTER TREATMENT
Passi Score : 0

CLINICAL IMPROVEMRNT PHOTOS

RESULTS AND OBSERVATIONS

OP.NO : 9864

AGE/SEX: 53/ Male

BEFORE TREATMENT
Passi Score : 2.8

BEFORE TREATMENT
Passi Score : 0

CLINICAL IMPROVEMRNT PHOTOS

OP.NO : 1032

RESULTS AND OBSERVATIONS

AGE/SEX: 30/ Female

BEFORE TREATMENT
Passi Score : 2.1

BEFORE TREATMENT
Passi Score : 0

DISCUSSIONS

DISCUSSION:

Thadippu Perunoi (psoriasis) is a chronic, inflammatory and proliferative skin disease with Erythematous, itching and scaling. The raised, scaly, and erythematous plaques associated with psoriasis can be cosmetically disfiguring, which may provoke disgust, fear, and aversion in others. Consequently, the social stigma of psoriasis can be devastating for patients, evoking feelings of shame and anxiety about how they are perceived. Significantly more disability, psychological distress and disease-related stressors are found among highly strained patients.

The trail drugs were prepared by the Author in Government Siddha Medical College, after getting proper authentication for raw drugs from the Medicinal Botany Department under the supervision of the members of the teaching faculty and guided by the Head of the Department of Sirappu Maruthuvam of the Government Siddha Medical College, Chennai-106.

In clinical study, 60 patients were selected, 20 patients were treated with internalmedicine,20 patients were treated with external oil deep relaxation therapy. 20 patients were treated with internal medicine, external oil and deep relaxation Therapy. Patients were treated in the out-patient department of Sirappu Maruthuvam.

TRAIL DRUGS:

INTERNAL MEDICINE: Maha manjishtathi kashayam
EXTERNAL MEDICINE: Chemparuthi poo ennai
THERAPY : Deep relaxation technique

Based on various criteria, the data were collected and tabulated. The criteria were distribution of age, gender, occupation, family history, diet, clinical Manifestations and assessment of the improvement in the prognosis of the disease with trail drugs.

1.AGE DISTRIBUTION:

Among 60 cases, high age incidence (31.66%) is Between 51 – 60yr, low age incidence (13.33%) is Between 41 – 50yr. Thadippu Perunoi can appear at birth as well as very old age. In this present study, considerable numbers of patients were reported between the age of 51-60yrs among study sample.

2. GENDER DISTRIBUTION:

Among 60 patients, 28 patients (46.6%) were male, 32patients (53.3%) were Female. Generally Thadippu Perunoi occurs with almost equal frequency in malesand females, but a slightly more number of female cases were reported.

3. OCCUPATIONAL DISTRIBUTION:

Among 60 patients, 12 Out of 60 patients were Home makers (20%), and 9 patients were cooli and 6 were tailor because due to mechanical stress.

4. FAMILY HISTORY:

Among 60 patients only 12 patients (20%) were having positive family history.

5. SOCIO ECONOMIC STATUS:

Among 60 patients 35 patients were low income group (58.3%), 20 patients were middle Income group (33.3%), 5 patients were higher income group (8.33%).

6. DIET:

Among 60 patients, 51 patients were non-vegetarian (85%), 9 patients were vegetarian (15%).

7. TRIGERRING FACTORS:

Among 60 patients, 18 patients were unknown origin (30%), 51 patients were non vegetarian (85%),11 patients due to had alcohol (18.33%), 1 patients due to infection (1.6%), 12 patients due to had smoking as a factor (20%), 2 patients were skin injury (3.33%), 0 patients were Reaction to certain drug (0%), 6 patients were in Psycho somatic origin (10%) .

8.CLINICAL FEATURES:

Among 60 patients have Erythematous patches with white silvery scales and Auspitz sign, Itching, Koebner's phenomenon as their predominant symptoms in BT, but after treatment symptoms is fully reduced, nail and joint involvement mildly present.

9. CLINICAL IMPROVEMENT IN WEAK BASED ON PASI SCORE:

The clinical efficacy of MMK was apparent from the PASI score at weak, Among the 60 patients,2 patients (3.3%) had symptoms reduction in 3 weeks, 4 patients (6.6%) had symptoms reduction in 4 weeks, 13patients (21.6%) had symptoms reduction in 5 weeks, 20 patients (33.3%) had symptoms reduction in 6 weeks, 21 patients (35%) had symptoms reduction in 7 weeks were noticed per week.

10. CLINICAL IMPROVEMENT BASED ON PASI SCORE PATIENT TREATED WITH INTERNAL& EXTERNAL MEDICINE & DRT

Among 60 patients treated in OPD, out of 20 patients given internal drug, external oil & Drt , 18 out of 20 patients had marked improvement (90%),2 out of 20 patients had moderate improvement (10%).

11.CLINICAL IMPROVEMENT BASED ON PASI SCORE PATIENT TREATED WITH INTERNAL MEDICINE

Among 60 patients treated in OPD, out of 20 patients given internal drug, 17out of 20 patients had marked improvement (85%), 2 out of 20 patients had moderate improvement (10%),1out of 20 patients had moderate improvement (5%).

12. CLINICAL IMPROVEMENT BASED ON PASI SCORE PATIENT TREATED WITH EXTERNAL MEDICINE & DRT

Among 60 patients treated in OPD, out of 20 patients given external drug & Drt, 16out of 20 patients had marked improvement (80%), 2 out of 20patients had moderate improvement (10%), 2 out of 20 patients had mild improvement (10%).

13. STATISTICAL RESULTS

Since the p value is significant in all clinical features. So, there is significant reducing of clinical features among the patients for the treatment of psoriasis. Hence it is concluded that the treatment was effective and significant .Since the P value is highly significant (<0.001). So there is significant reducing of PASI Score among the patients for the treatment (internal medicine, external medicine & Drt) of Thadippu Perunoi (psoriasis).Hence it is concluded that the treatment was effective and significant.

The outcome of the study was clinically observed by PASI Score. Which showed encouraging results of marked improvement in 51 patients (85%), moderate improvement in 6 patients (10%), and mild improvement in 3 patients (5%).

MARKED IMPROVEMENT - 85%

MODERATE IMPROVEMENT - 10%

MILD IMPROVEMENT-5%

SUMMARY

SUMMARY

AN OPEN COMPARATIVE CLINICAL EVALUATION ON"THADIPPU PERUNOI" (PSORIASIS) WITH SIDDHA TRIALDRUGS"MAHA MANJISHTATHI KASHAYAM"(INT) ,"CHEMPARUTHI POO ENNAI (EXT)'' AND "DEEP RELAXATION TECHNIQUE" has been chosen for the dissertation work by the author.

- The aim of the study was to evaluate the safety and efficacy of Herbal Siddha Drugs "Maha manjishatahi kashayam" (Int), "Chemparuthi poo ennai (Ext)'' and "Dee relaxation technique" in management of Thadippu Perunoi(Psoriasis).
- Literatures evidence has been collected from siddha and modern text book sand also the drug review also said.
- Standard operative procedure for both trial drugs was standardized.
- Pre - clinical toxicity study was done for the trial drug "Maha manjishtathi kashayam" (Int), in using of female Wister albino rats. Toxicity study was carried out after getting proper permission in Institutional Animal Ethical Committee (IAEC).
- The study is conducted after the drug being screened by the screening committee and the trial is also approved by the Institutional Ethical Committee(IEC). The clinical trial also registered in Clinical Trial Registry of India(CTRI).
- Qualitative and Quantitative study on the trial drug such as Physico-chemical analysis had been done, results are normal in range.
- Anti-Psoriatic activity of "Maaha manjishatathi kashayam" (Int), was studied in Human Keratinocytes cell line (HaCaT) in vitro method.
- 60 Patients of both sex and in age group between 18-60 years were selected for this clinical trial.
- Among 60 patients were from OPD, 20 Patients were selected for treating with trial drugs Internal,20 patients were treated with external oil and Deep relaxation technique,20 patients were treated with internal drug, external oil and therapy.

- All the details about this study and the trial drug MMK consent forms duly signed by them, separate Performa was maintained for each patients.
- Photos of the patient before and after treatment for the evidence of clinical improvement.
- Before and after treatment blood samples are collected for the laboratory investigation.
- The safety of the trial drug MAHA MANJISHTAHI KASHAYAM was assessed by comparing the safety parameters such as LFT AND RFT before and after treatment was taken.
- From the first day onwards MAHA MANJISHTATHI KASHAYAM,30 ml, twice daily was given internally and CHEMPARUTHI POO ENNAI - 100mlfor external application & DEEP RELAXATION TECHNIQUE given to the patients.
- Clinical improvement was assessed using of PASI SCORE.
- Among 60 patients, out of 20 patients given internal drug, external drug & DRT ,18 out of 20patients had marked improvement (90%),2 out of20 patients had moderate improvement (10%).
- Out of 20 patients given internal drug ,17 out of 20 patients had marked improvement (85%),2 out of 20 patients had moderate improvement (10%) ,1out of 20 patients had mild improvement (5%).
- Out of 20 patients given external drug& DRT,16out of 20patients had marked improvement (80%),2out of 20patients had moderate improvement (10%),2 out of 20 patients had mild improvement (10%).
- Finally statistical analysis was performed to assess the significance of the clinical trial.
- Since the p value is significant in all clinical features. So there is significant reducing of clinical features among the patients for the treatment of Thadippu Perunoi (psoriasis).Hence it is concluded that the treatment was effective and significant.
- Since the P value is highly significant (<0.001). So, there is significant reducing of PASI Score among the patients for the treatment (internal medicine & external medicine) of Thadippu Peru noi (psoriasis). Hence it is concluded that the treatment was effective and significant.

CONCLUSION

CONCLUSION:

- Heavy metal analysis of Maha manjishtathi kashayam (MMK) reveals that the drug does not contain any metals like lead, Cadmium, Arsenic and mercury.

- Qualitative and Quantitative study on the trail drug results are normal in range.

- Acute and sub- acute toxicity study with 2 doses given in female Wister albino rats (10 mg/ kg, 20 mg/kg of body weight) were administered orally repeated for 28 days. Animals are observed for physiological and behavioral changes, after animal sacrificed and changes in organ and histo pathological changes were examined, reveals that the trial drug Maha manjishtathi Kashayam considered as safe.

- Anti-Psoriatic activity of Maha Manjishatahi Kashaym was studied in Human Keratinocytes cell line (HaCaT), LPS treatment produced effects similar to psoriasis as reported and the compound was effective in limiting the increased proliferation in HaCaT cells. 100ug/ml reduced the cell viability to 19.96% which is significant.

- Among 60 patients treated in OPD, 51 patients had marked improvement (85%), 6 patients had moderate improvement (10%), 3 patients had mild improvement (5%). Result of the study was concluded by reducing PASI SCORE.

- Deep relaxation technique may have treating ability of psoriasis by reducing stress. And it is along with the Siddha trial drugs was very effective in overall improvements were good. And itching and scaling was reduced in group I and III are very effective when comparing to group II.

- The LFT & RFT before and after treatment do not show any significant change in psoriasis cases, hence it is safe in human trial. In my clinical trial during the trial were no adverse effects or unwanted drug reactions in GIT, RS, CVS & excretory system.

- Statistical analysis shows , since the p value (<0.01) is significant in all clinical features. so there is a significant reducing of clinical features among the patients for the treatment of Thadippu perunoi (Psoriasis).Hence it is concluded that the treatment was effective and significant.

- Nowadays the modern treatment of Psoriasis includes Steroidal medications such as Methotextrates which may lead to many adverse effects. But MMK intake for long term has no adverse effects since there are no variations in the safety parameters such as LFT and RFT. So, it's the time to bring back our old traditional medicines for the effective treatment for Psoriasis.

- The results of the clinical trial indicate that the trial drug Maha manjishtathi Kaashayam (Internal) Chemparuthi poo ennai (External) and Deep relaxation technique are clinically, more effective in THADIPPU PERUNOI (PSORIASIS) Patients.

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** Science College -University of Baghdad *** Dental Medical College –University of Baghdad, Iraq.

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NATIONAL SEMINAR ON

"RESEARCH METHODOLOGY AND PUBLIC HEALTH INITIATIVE THROUGH SIDDHA SYSTEM OF MEDICINE"

(RM & PHISSM – 2018)

6TH & 7TH APRIL 2018

प्रमाण पत्र
CERTIFICATE

सिद्ध क्षेत्रीय अनुसन्धान संस्थान
पूजप्पुरा, तिरुवनंतपुरम, केरल
SIDDHA REGIONAL RESEARCH INSTITUTE
Poojappura, Thiruvananthapuram, Kerala

केन्द्रीय सिद्ध अनुसन्धान परिषद्
(आयुष मंत्रालय, भारत सरकार)
CENTRAL COUNCIL FOR RESEARCH IN SIDDHA
Ministry of AYUSH, Govt. of India

This is to certify that Dr./Shri/Smt. Nandhini E. GSMC, Chennai has participated/~~presented~~ a paper entitled.....

..... in the National Seminar on "Research Methodology and Public Health Initiative through Siddha System of Medicine" (RM & PHISSM – 2018) organized by Siddha Regional Research Institute, Thiruvananthapuram on 6th & 7th April 2018 at Dr. M R DAS Convention Centre, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, Kerala.

RM & PHISSM 2018

डॉ. ए. कनगराजन / Dr. A. Kanagarajan
Organizing Secretary and Convenor

प्रो.डॉ आर एस. रामास्वामी / Prof. Dr. R. S. Ramaswamy
Director General, CCRS

2018

IN COLLABORATION WITH

Govt OF INDIA

NORTHERN PROVINCIAL COUNCIL

सत्यमेव जयते

1ST INTERNATIONAL CONFERENCE & EXHIBITION ON SIDDHA MEDICINE -2018

23RD - 27TH AT UNIT OF SIDDHA MEDICINE
UNIVERSITY OF JAFFNA.
SRI LANKA

CERTIFICATE

THIS IS TO CERTIFY THAT Prof / Dr. / Mr. / Ms. ....E. NANDHINI..... PARTICIPATED / PRESENTED A PAPER ON ...Holistic Approach of Diagnosis and Treatment of Puttunoi..... IN THE ABOVE CONFERENCE HELD ON 26TH & 27TH FEBRUARY 2018.

.....

Prof . R. VIGNESWARAN
VICE CHANCELLOR

.....

Shri. A. NATRAJAN
CONSULATE GENERAL,

2018

C.L.BAID METHA COLLEGE OF PHARMACY

(An ISO 9001-2000 certified institute)

Jyothi Nagar, Old Mahabalipuram Road

Thoraipakkam, Chennai – 600 097

CERTIFICATE

This is to certify that the project entitled, Toxicological study on MAHA MANJISHTATHI KASHAYAM in rats submitted in partial fulfilment for the degree of M.D. (siddha) was carried out at C.L. Baid Metha college of Pharmacy, Chennai-97, in the Department of Pharmacology during the academic year of 2016-2017. It has been approved by the IAEC No: XLVIII/25/CLBMCP/2016

C.L. Baid Metha College of Pharmacy CHENNAI-97 Thoraipakkam

Dr.P.MURALIDHARAN

Government Siddha Medical College
Department of Medicinal Botany

Dr. S. Sankaranarayanan M.Sc., M.Phil., Ph.D.,
Asst. Professor
Head of the Department

6, Anna Arch Rd,
NSK Nagar,
Arumbakkam, Chennai,
Tamil Nadu 600106.

AUTHENTICATION CERTIFICATE

Based upon the organoleptic/macroscopic/microscopic examination of fresh/market sample, it is certified that the specimen given to Dr. E. Nandhini B.S.M.S, doing M.D. (S) at Government Siddha Medical College, Arumbakkam, Chennai-106 is identified below as

Binomial name	Family	Voucher Specimen No
Rubia cordifolia	Rubiaceae	GSMC/MB-63/17
Terminalia chebula	Combretaceae	GSMC/MB-64/17
Terminalia bellarica	Combretaceae	GSMC/MB-65/17
Phyllanthus emblica	Euphorbiaceae	GSMC/MB-66/17
Picrorhiza kurroa	Scrophulariaceae	GSMC/MB-67/17
Acorus calamus	Araceae	GSMC/MB-68/17
Coscinium fenestratum	Menispermaceae	GSMC/MB-69/17
Tinospora cordifolia	Menispermaceae	GSMC/MB-70/17
Azadirachta indica	Meliaceae	GSMC/MB-71/17

References: Flora of Presidency, Gamble, J. S

Date: 01.06.2017

1/6/2017

Dr. S. Sankaranarayanan M.Sc., M.Phil., Ph.D.,
Head
Dept. of Maruthuva Thavaraiyal
(Medicinal Botany and Pharmacognosy)
Govt. Siddha Medical
Arumbakkam,

The Tamil Nadu Dr.M.G.R.Medical University

69, Anna Salai, Guindy, Chennai - 600 032.

This Certificate is awarded to Dr/Mr/Mrs.....E. NANDHINI.....

For participating as ~~Resource Person~~ / Delegate in the Twentieth Workshop on

"RESEARCH METHODOLOGY & BIOSTATISTICS"

*For **AYUSH Post Graduates & Researchers***

Organized by the Department of Siddha

The Tamil Nadu Dr. M.G.R. Medical University From 07th to 11th March 2016.

Dr.N.KABILAN, M.D.(S)
PROF & HEAD
DEPT.OF SIDDHA

Prof.**Dr.P.ARUMUGAM,** M.D.,
REGISTRAR i/c

Prof. **Dr.S.GEETHALAKSHMI,** M.D., Ph.D.,
VICE CHANCELLOR

2018

GOVERNMENT SIDDHA MEDICAL COLLEGE

Arumbakkam, Chennai-106

Communication Of The Decision Of Institutional Ethics Committee (IEC)

IEC No: GSMC-CH-ME-5/013/2016

Protocol title:

AN OPEN COMPARATIVE CLINICAL EVALUATION ON THADIPPU PERUNOI (PSORIASIS) WITH THE SIDDHA HERBAL FORMULATION DRUG "MAHA MANJISHTATHI KASHAYAM"(INTERNAL) ,"CHEMPARUTHI POO ENNAI" (EXTERNAL) & AASANAM

Principal Investigator: Dr. E. NANDHINI

Name & Address of Institution:

Government Siddha Medical College,

Arumbakkam, Chennai-106

☑ New Review ☐ Revised Review ☐ Expedited Review

Date of review (DD/MM/YY): 05-04-2016

Date of Previous Review, If Revised Application:

Decision of the IEC

☑ Recommended ☐ Recommended with suggestions

☐ Revision ☐ Rejected

Suggestions / Reasons / Remarks: 1. Remove the cell line study and add Anti Psoriatic activity in invivo method. 2. A simple randamisation will be done for trial groups

Recommended for a period of 1 year
from date of completion of preclinical studies :

Please Note:

- Inform IEC immediately in case of any adverse events/serious drug reaction.
- Seek IECapproval in case of any change in the study procedure, site and investigator
- This approval is valid only for period mentioned above
- IEC member have the right to review the trial with prior intimation.

Dr.P.Jeyaprakashnarayanan, M.D(s)
Chairman

Dr.K.Kanakavalli, M.D(s)
Member Secretary

Clinical Trial Details (PDF Generation Date :- Fri, 04 May 2018 06:37:07 GMT)

CTRI Number	CTRI/2018/05/013686 [Registered on: 04/05/2018] - **Trial Registered Retrospectively**
Last Modified On	26/04/2018
Post Graduate Thesis	Yes
Type of Trial	Interventional
Type of Study	Drug Siddha
Study Design	Single Arm Trial
Public Title of Study	A study on Siddha trail drug Maha manjishtathi kashayam(INT)Chemparuthi poo ennai (EXT)and Aasanam in patients having Psoriasis
Scientific Title of Study	An open comparative clinical evalution on Thadippu perunoi (Psoriasis)with Siddha herbal formulation drug Maha manjishtathi kashayam(INT),Chemparuthi poo ennai (EXT)and Aasanam

Secondary IDs if Any

Secondary ID	Identifier
NIL	NIL

Details of Principal Investigator or overall Trial Coordinator (multi-center study)

Details of Principal Investigator	
Name	Dr E Nandhini
Designation	PG Scholar
Affiliation	Govt Siddha Medical College
Address	Post Graduate Department of Sirappu Maruthuvam Govt Siddha Medical College 6, Anna arch road NSK Nagar Arumbakkam Chennai 106 Chennai TAMIL NADU 600106 India
Phone	9677598779
Fax	
Email	dr.nandhinielangovan@gmail.com

Details Contact Person (Scientific Query)

Details Contact Person (Scientific Query)	
Name	Dr M Mohamed musthafa
Designation	Reader
Affiliation	Govt Siddha Medical College
Address	Post Graduate Department of Sirappu Maruthuvam Govt Siddha Medical College 6, Anna arch road NSK Nagar Arumbakkam Chennai 106 Chennai TAMIL NADU 600106 India
Phone	9444190077
Fax	
Email	spmhibiscus@gmail.com

Details Contact Person (Public Query)

Details Contact Person (Public Query)	
Name	Dr E Nandhini
Designation	PG Scholar
Affiliation	Govt Siddha Medical College
Address	Post Graduate Department of Sirappu Maruthuvam Govt Siddha Medical College 6, Anna arch road NSK Nagar Arumbakkam Chennai 106 Chennai

	TAMIL NADU 600106 India
Phone	9677598779
Fax	
Email	dr.nandhinielangovan@gmail.com

Source of Monetary or Material Support

Source of Monetary or Material Support
> Govt Siddha Medical College ,no 6 Anna arch Road NSK nagar ,Arumbakkam ,Chennai 106

Primary Sponsor

Primary Sponsor Details	
Name	Govt Siddha Medical College
Address	Govt Siddha M edical College No 6 Anna arch road NSK Nagar Arumbakkam Chennai 106
Type of Sponsor	Government medical college

Details of Secondary Sponsor

Name	Address
NIL	NIL

Countries of Recruitment

List of Countries
India

Sites of Study

Name of Principal Investigator	Name of Site	Site Address	Phone/Fax/Email
Dr E Nandhini	Aringar Anna Government Hospital Of Indian Medicine	Room no 4 Siddha department Aringar Anna Government Hospital of Indian Medicine Arumbakkam Chennai 106 Chennai TAMIL NADU	9677598779 dr.nandhinielangovan@gmail.com

Details of Ethics Committee

Name of Committee	Approval Status	Date of Approval	Is Independent Ethics Committee?
Institutional Ethics Commitee	Approved	05/04/2016	No

Regulatory Clearance Status from DCGI

Status	Date
Not Applicable	No Date Specified

Health Condition / Problems Studied

Health Type	Condition
Patients	Thethru kuttam (Psoriasis)

Intervention / Comparator Agent

Type	Name	Details
Comparator Agent	nil	nil
Intervention	Maha Manjishtathi Kashayam	30ml of Kashayam is administered twice a day for 48 days

Inclusion Criteria

Inclusion Criteria	
Age From	18.00 Year(s)
Age To	60.00 Year(s)
Gender	Both
Details	1.Patients who are having classical symptoms of Psoriasis 2.Auspitz sign positive 3.Koebners phenomenon positive

Exclusion Criteria

Exclusion Criteria	
Details	1.Patients of age below 18 and above 60

	2.Patients having pustular Psoriasis 3.SLE 4.Leprosy 5.Pregnancy 6.Alcoholics 7.Prolonged NSAID intakers

Method of Generating Random Sequence	Not Applicable
Method of Concealment	Case Record Numbers
Blinding/Masking	Open Label

Primary Outcome

Outcome	Timepoints
outcome is reduction in scaling and erythematous patches which is assesssed by PASI Score	nil

Secondary Outcome

Outcome	Timepoints
NIL	NIL

Target Sample Size	**Total Sample Size=**60 **Sample Size from India=**60
Phase of Trial	Phase 2
Date of First Enrollment (India)	06/06/2017
Date of First Enrollment (Global)	No Date Specified
Estimated Duration of Trial	**Years=**1 **Months=**0 **Days=**0
Recruitment Status of Trial (Global)	Not Applicable
Recruitment Status of Trial (India)	Open to Recruitment
Publication Details	Not yet
Brief Summary	This is a Single Non Randomized open clinical trail to study the Safety and efficacy of Siddha traildrug Maha Manjishtathi K ashayam. The trail drug is given30ml twice a day for 48 days .Clinical trail is coonducted after conducting Preclinical toxicity study. The trail drug Maha Manjishtathi Kashayam is mentioned in Agathiyar Vaithiya Pillai Tamil . During the trail all the study related data will be recorded and documented .After the completion of trail all the data will be analysed statistically

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106.

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

PRINICIPAL INVESTIGATOR: Dr. E. NANDHINI **REG NO: 321513103**

An open comparitive clinical evaluation on "THADIPPU PERUNOI (PSORIASIS)" with the evaluation on Siddha Herbal formulation "MAHA MANJISHTATHI KASHAYAM "(internal) and "CHEMPARUTHI POO ENNAI" (external), DEEP RELAXATION TECHNIQUE.

FORM l - SCREENING & SELECTION PROFORMA

1. OP NO : ……

2. NAME : …….

3. AGE : ……

4. GENDER : …….....

5. OCCUPATION : ……..

6. INCOME : ……

7. ADDRESS : …….
……

8. CONTACT NO : ……

INCLUSION CRITERIA

- Age :15-60 years Yes / No
- Sex : Both male and female Yes / No
- Patches with Scaling Yes / No
- Auspitz sign + Yes / No
- Koebner's phenomenon + Yes / No
- Patients Willing to fill consent form Yes / No
- Patients willing to take photograph before& after treatment Yes / No

EXCLUSION CRITERIA:

HISTORY OF

- Narcotic Addicts
- Leprosy
- Cardiac disease
- Peptic ulcer
- SLE, Progressive systemic sclerosis
- Pregnancy women and lactation
- HIV
- Alcohol
- Evidence of secondary infections in the lesions
- Syphilis
- History of long term intake of steroids

ADMITTED TO TRIAL:

YES NO

If yes, OPD/IPD

Date:

Station:

Signature of the Investigator: Signature of the Guide:

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

PRINICIPAL INVESTIGATOR: Dr. E. NANDHINI REG NO: 321313103

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FORM II - HISTORY TAKING PROFORMA ON ENROLLMENT

1.SERIAL NO OF THE CASE: ……

2.OP / IP NO: .....

3. NAME: …… 4.AGE: …… 5.GENDER: .....

6. MARITAL STATUS 1.Married ☐ 2.Unmarried ☐

7. COMPLAINTS & DURATION:

8. CHIEF COMPLAINTS WITH DURATION

		Present	Absent	Duration (indays)
1.Itching	**:**			
2. Dryness of the skin	**:**			

3. Roughness :

4. Circular erythema :

5. Exfoliation :

6. Hyper Pigmentation :

7. Hypo-Pigmentation :

8. Maceration :

9. Pin point bleeding
After removal of skin :

10. Papule/Pustule/Vesicle :

11. Fissures :

9. HISTORY OF PRESENT ILLNESS

1. **Onset of disease :** Acute Insidious
2. **Duration of disease :**
3. **Treatment given so far :** Ayurvedic medicine Modern Medicine

Unani Homeopathy

10. PERSONAL HISTORY:

PERSONAL HABITS	**YES**	**NO**	**IF YES SPECIFY DURATION**
Habits of smoking			
Habit of Tobacco Chewing			
Habit of Alcohol			
Any Habit of Narcotic Drug Addiction			

11. DRUG HISTORY:

12. FAMILY HISTORY:

Whether this problem runs in family?

1. Yes 2.No

If yes, mention the relationship of affected person(s) ----------

History of previous investigations if any ----------

13. DIETARY STYLE:

1. Pure vegetarian ☐
2. Non-vegetarian ☐

14. BOWEL HABITS & MICTURITION:

15. MENSTURAL AND OBSTETRIC HISTORY:

16. HISTORY OF PREVIOUS ILLNESS/PELVIC SURGERY

Date: Signature of the guide:

Station:

Signature of the Investigator:

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106.

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

PRINICIPAL INVESTIGATOR: Dr. E. Nandhini **REG NO: 321513103**

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FORM III - CLINICAL ASSESSMENT ON ENROLLMENT PROFOMA

1. OP NO: ---------- 2.IP NO: ---------- 3.BED NO: ------ 4.SI NO: --------

5. NAME: ---------- 6. AGE: --------- 7.GENDER: ----------

8. DATE OF BIRTH: ☐☐ ☐☐ ☐☐☐☐

D M Y E A R

9. DATE OF INITIAL ASSESSMENT: ----------

SIDDHA SYSTEM OF EXAMINATION:

1. THEGI (BODY CONSTITUTION):

1. Vatha udal ☐
2. Pitha udal ☐
3. Kaba udal ☐
4. Thontha udal ☐

2. NILAM (LAND WHERE THE PATIENT LIVED MOST):

1. Kurinji ☐
2. Mullai ☐
3. Marutham ☐
4. Neithal ☐
5. Paalai ☐

3. KAALAM:

1. Kaar kaalam (Aavani-Puratasi) ☐
2. Koothir kaalam (Ippasi-Kaarthigai) ☐
3. Munpani kaalam (Maargazhi-Tai) ☐
4. Pinpani kaalam (Maasi-Panguni) ☐
5. Ilavenil kaalam (Chithirai-Vaigasi) ☐
6. Muthuvenil kaalam (Aani-Aadi) ☐

4. GUNAM:

1. Sathuvam ☐
2. Rasatham ☐
3. Thamasam ☐

5. PORIPULANGAL (SENSORY ORGANS):

	Normal	**Affected**	
1. Mei	☐	☐	.....
2. Vaai (Naaku)	☐	☐	.....
3. Kan	☐	☐	.....
4. Mookku	☐	☐	.....
5. Sevi	☐	☐	.....

6. KANMENDRIYAM (MOTOR ORGANS) :

	Normal	Affected	
1. Vaai	☐	☐	.....
2. Kaal	☐	☐	.....
3. Kai	☐	☐	.....
4. Eruvaai	☐	☐	.....
5. Karuvaai	☐	☐	.....

7. KOSANGAL (SHEATH):

	Normal	Affected	
1. Annamaya kosam	☐	☐	.....
2. Pranamaya kosam	☐	☐	.....
3. Manomaya kosam	☐	☐	.....
4. Vignanamaya kosam	☐	☐	.....
5. Anandhamaya kosam	☐	☐	.....

8. UYIR THATHUKKAL (THREE HUMOURS):

8a.VALI:	**Normal**	**Affected**	
1. Praanan	☐	☐	.....
2. Abaanan	☐	☐	.....
3. Viyaanan	☐	☐	.....
4. Uthaanan	☐	☐	.....
5. Samaanan	☐	☐	.....
6. Naagan	☐	☐	.....
7. Koorman	☐	☐	.....
8. Kirukaran	☐	☐	.....
9. Devathathan	☐	☐	.....
10. Dhananjayan	☐	☐	.....

8b. AZHAL: **Normal** **Affected**

1. Analam ☐ ☐ .....
2. Ranjagam ☐ ☐ .....
3. Saathagam ☐ ☐ .....
4. Aalosagam ☐ ☐ .....
5. Praasagam ☐ ☐ .....

8c.IYAM: **Normal** **Affected**

1. Avalambagam ☐ ☐ .....
2. Kilethagam ☐ ☐ .....
3. Pothagam ☐ ☐ .....
4. Tharpagam ☐ ☐ .....
5. Santhigam ☐ ☐ .....

9. EN VAGAI THERVU (EIGHT FOLDS OF EXAMINATION):

1.Naadi : **…….....**

2.Parisam : **…….....**

3.Naa : **.....…….....**

4.Niram : **.....…….....**

5.Mozhi : **.....…….....**

6.Vizhi : **.....**

7.Malam : **.....**

8. Moothiram : **……**

8a.Neerkuri:

Niram : 1.Whitish ☐ 2. Yellowish ☐ 3.Straw coloured ☐ 4. Crystal clear ☐

Edai : 1.Present ☐ 2.Absent ☐

Manam : 1.Nil ☐ 2.Reduced ☐ 3. Increased ☐

Nurai: 1. Normal ☐ 2.Increased ☐ 3. Decreased ☐

Enjal:

8b: Neerkuri (Oil –in urine sign):

Vatha Neer ☐ Pitha Neer ☐ Kaba Neer ☐

10. SEVEN UDAL THAATHUKKAL (SEVEN SOMATIC COMPONENTS):

	Normal	**Affected**	
1. Saaram	☐	☐	.....
2. Senneer	☐	☐	.....
3. Oon	☐	☐	.....
4. Kozhuppu	☐	☐	.....
5. Enbu	☐	☐	.....
6. Moolai	☐	☐	.....
7. Sukkilam / Suronitham	☐	☐	.....

GENERAL EXAMINATION:

1. Body weight [Kg] :
2. Height [cm] :
3. Body Temperature [F] :
4. Blood Pressure (mmHg) :
5. Pulse Rate /min. :
6. Heart Rate / min. :
7. Respiratory Rate /min. :

		Yes	**No**
8. Pallor	:	☐	☐
9. Jaundice	:	☐	☐
10. Clubbing	:	☐	☐
11. Cyanosis	:	☐	☐
12. Pedal Oedema	:	☐	☐
13. Lymphadenopathy	:	☐	☐
14. Jugular venous pulsation	:	☐	☐

VITAL ORGAN EXAMINATION:

	Normal	Abnormal
1. Heart	☐	☐
2. Lungs	☐	☐
3. Brain	☐	☐
4. Liver	☐	☐
5. Kidney	☐	☐
6. Spleen	☐	☐
7. Stomach	☐	☐

SYSTEMIC EXAMINATION:

	Normal	Abnormal
1. Cardio-vascular system	☐	☐
2. Respiratory system	☐	☐
3. Gastro intestinal system	☐	☐
4. Central nervous system	☐	☐
5. Genital urinary system	☐	☐
6. Endocrine system	☐	☐

11. CLINICAL EXAMINATION:

CLINICAL EXAMINATION OF SKIN

1.Site: ----------

---

2. Colour: Normal ☐ Reddish ☐ Black ☐ Greyish ☐

3. Shape: Irregular ☐ Coin shape ☐ Dispersed ☐

4. Itching: No ☐ Mild ☐ Moderate ☐ Severe ☐

5. Scaling: Mild ☐ Moderate ☐ Severe ☐

6. Erythema: Present ☐ Absent ☐

7. Bleeding: Present ☐ Absent ☐

8. Crusting: Present ☐ Absent ☐

9. Lichenification: Present ☐ Absent ☐

10. Oozing: No ☐ Mild ☐ Moderate ☐ severe ☐

11. Auspitz sign: Present ☐ Absent ☐

12. Koebner's phenomenon: Present ☐ Absent ☐

13. Candle grease sign: Present ☐ Absent ☐

	YES	**NO**
14. Ulcération:	☐	☐
15. Macule:	☐	☐
16. Papule:	☐	☐
17. Pustule:	☐	☐
18. Blister:	☐	☐
19. Vesicle:	☐	☐

20. Pigmentation: Normal ☐ Hypo ☐ Hyper ☐

EXAMINATION OF NAILS:

1. Pitting:	Present	☐	Absent	☐
2 Thickening:	Present	☐	Absent	☐
3. Collection of Hyperkeratotic debris:	Present	☐	Absent	☐
4. Separation of distal portion of nail:	Present	☐	Absent	☐

EXAMINATION OF JOINTS:

	YES	**NO**
Joint Involvement	☐	☐

Date :

Station: Signature of the guide:

Signature of the Investigator:

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

PRINICIPAL INVESTIGATOR: Dr. E. NANDHINI **REG NO: 321513103**

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FORM IV: LABORATORY INVESTIGATIONS PROFORMA

1. SERIAL NO OF THE CASE: ……

2.OP / IP NO: .....

3. NAME: …… 4.AGE: …… 5.GENDER: .....

A) BLOOD INVESTIGATIONS

BLOOD INVESTIGATIONS		**NORMAL VALUES**	**BEFORE TMT (WITH DATE)**	**AFTER TMT (WITH DATE)**
HB(gm/dl)		**M:12-15 W:11.5-14**		
T.WBC (cells/cu.mm)		**4000-11000**		
DIFFERENTIAL COUNT (%)	**Polymorphs**	**40-75**		
	Lymphocytes	**20-40**		
	Monocytes	**2-10**		
	Eosinophils	**1-6**		

	Basophils	**0-1**		
T.RBC(million cells/cu.mm)		**M:4.0-5.5 W:3.5-4.5**		
ESR(mm/hour)	**½ hr.**	**M:6-12 W:7-18**		
	1 hr.			

Blood Investigations		**Normal Values**	**Before TMT(WITH DATE)**	**After TMT (WITH DATE)**
Blood glucose (mg/dl)	**Fasting**	**70-110**		
	PP	**80-140**		
	Random	**80-120**		
RFT (mg/dl)	**Blood urea**	**16-50**		
	Serum creatinine	**0.6-1.2**		
LFT (mg/dl)	**Total bilirubin**	**0.2-1.2**		
	Direct bilirubin	**0.1-1.2**		
	Indirect bilirubin	**0.2-0.7**		
	SGOT	**0-40**		
	SGPT	**0-35**		
	Alkaline phosphatase	**80-290**		

B) URINE INVESTIGATIONS:

URINE INVESTIGATIONS	BEFORE TREATMENT	AFTER TREATMENT
Albumin		
Sugar		
Deposits		

Date:

Station:

Signature of the Guide:

Signature of the Investigator:

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

PRINICIPAL INVESTIGATOR: Dr. E. NANDHINI **REG NO: 321213103**

An open comparitive clinical evaluation on "THADIPPU PERUNOI (PSORIASIS)" with the evaluation on Siddha Herbal formulation "MAHA MANJISHTATHI KASHAYAM "(internal) and "CHEMPARUTHI POO ENNAI" (external) and DEEP RELAXATION TECHNIQUE.

FORM V: INFORMED CONSENT FORM

"I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I consent voluntarily to participate in this study and understand that I have the right to withdraw from the study at any time without in any way it affecting my further medical care".

"I have received a copy of the information sheet/consent form".

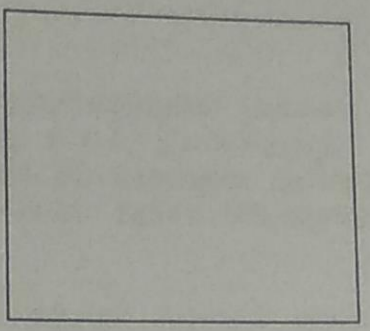
Date:

Signature of the participant:

In case of illiterate participant

"I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely."

Date:



Signature of a witness

Left thumb Impression of the Participant

(Selected by the participant bearing no connection with the survey team)

Date:

Station:

Signature of participant:

Signature of the Guide:

Signature of the Investigator:

அரசு சித்தமருத்துவக் கல்லூரமெ, சென்னை-106

அறிஞர் அண்ணாமருத்துவமனை,சென்னை

தடிப்பு பெருநோய்க்கான சித்தமருந்தின் **" மஹா மஞ்சிஷ்டாதிக் கஷாயம், செம்பருத்தி பூ எண்ணெய் மற்றும் ஆசனம்"**

பரிகரிப்புத் திறனைக் கண்டறியும் மருத்துவ ஆய்விற்கானதகவல் படிவம்.

ஒப்புதல் படிவம் ஆய்வாளரால் சான்றளிக்கப்பட்டது.

நான் இந்த ஆய்வை குறித்த அனைத்து விபரங்களையும் நோயாளிக்குபுரியும் வகையில் எடுத்துரைத்தேன் என உறுதியளிக்கிறேன்.

தேதி:
இடம்:

கையொப்பம்:
பெயர்:

நோயாளியின் ஒப்புதல் படிவம்

என்னிடம் இந்த மருத்துவ ஆய்வின் காரணத்தையும்,மருந்தின் தன்மை மற்றும் மருத்துவ வழிமுறை பற்றியும், தொடர்ந்து எனது உடல் இயக்கத்தை கண்காணிக்கவும், அதனை பாதுகாக்கவும் பயன்படும் மருத்துவ ஆய்வுக்கூட பரிசோதனைகள் பற்ற ிதிருப்தி அளிக்கும் வகையில் ஆய்வு மருத்துவரால் விளக்கிக் கூறப்பட்டது.

நான் இந்த மருத்துவ ஆய்வின் போது,காரணம் எதுவும் கூறாமல் எப்பொழுது வேண்டுமானாலும் இந்த ஆய்விலிருந்து என்னை விடுவித்து கொள்ளும் உரிமையை தெரிந்திருக்கின்றேன். நான் என்னுடைய சுதந்திரமான தேர்வு செய்யும் உரிமையைக் கொண்டு **தடிப்பு பெருநோய்க்கான** நோய்க்கான **" மஹா மஞ்சிஷ்டாதிக் கஷாயம் மற்றும் ஆசனம்** மருந்தின் பரிகரிப்புத் திறனைக் கண்டறியும் மருந்தின் ஆய்விற்கு என்னை உட்படுத்த ஒப்புதல் அளிக்கிறேன்.

தேதி:
இடம்:

கையொப்பம்:
பெயர்:

தேதி:
இடம்:
உறவுமுறை:

சாட்சிக்காரர் கையொப்பம்:
பெயர்:

துறைத்தலைவர் கையொப்பம்:

ஆராய்ச்சியாளர் கையொப்பம்:

அரசு சித்த மருத்துவ கல்லூரி, சென்னை - 106

அறிஞர் அண்ணா மருத்துவமனை சென்னை

தடிப்பு பெருநோய்க்கான சித்த மருத்துவ மருந்தின் மஹா மஞ்சிஷ்டாதி கஷாயம்

பரிகரிப்பு திறனை கண்டறியும் மருத்துவ ஆய்விற்கான தகவல் படிவம், ஒப்புதல் படிவம். ஆய்வாளரால் சான்றளிக்க பட்டது.

நான் இந்த ஆய்வை குறித்த அணைத்து விபரங்களும் நோயாளிக்கு புரியும் வகையில் எடுத்து உரைத்துள்ளேன் என்று உறுதி அளித்து உள்ளேன்

தேதி : கையப்பம் :

இடம் : பெயர் :

நோயாளியின் ஒப்புதல் :

என்னிடம் இந்த மருத்துவ ஆய்வின் காரணத்தையும், மருந்தின் தன்மை மற்றும் மருத்துவ வழிமுறை பற்றியும், தொடர்ந்து எனது உடல் இயக்கத்தை கண்காணிக்கவும், அதனை பாதுகாக்கவும் பயன்படும் மருத்துவ ஆய்வுக்கூட பரிசோதனைகள் பற்றி திருப்தி அளிக்கும் வகையில் ஆய்வு மருத்துவரால் விழுங்கிக் கூறப்பட்டுள்ளது.

நான் இந்த மருத்துவ ஆய்வின் போது, காரணம் எதுவும் கூறாமல், எப்பொழுது வேண்டுமானாலும் இந்த ஆய்விலிருந்து என்னை விடுவித்து கொள்ளும் உரிமையைத்தெரிந்திருக்கின்றான். நான் என்னுடைய சுதந்திரமாக தேர்வு செய்யும் உரிமையைக் கொண்டு தடிப்பு பெரு நோய்க்கான மகா மஞ்சிஷ்டாதி கஷாயம் மருந்தின் பரிகரிப்பு திறனை கண்டறிந்து மருத்துவ ஆய்விற்கு என்னை உட்படுத்த ஒப்புதல் அளிக்கின்றேன்.

இம்மருந்துகளினால் ஏற்படும் பக்க விளைவுகள் குறித்தும் விவரிக்கப்பட்டுள்ளது.

தேதி : கையப்பம் :

இடம் : பெயர் :

தேதி : சாட்சிக்காரர் கையப்பம் :

இடம் : பெயர் :

உறவு முறை :

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

PRINICIPAL INVESTIGATOR: Dr. E. NANDHINI **REG NO: 321213103**

An open comparitive clinical evaluation on "THADIPPU PERUNOI (PSORIASIS)" with the evaluation on Siddha Herbal formulation "MAHA MANJISHTATHI KASHAYAM "(internal) and "CHEMPARUTHI POO ENNAI" (external) and DEEP RELAXATION TECHNIQUE.

FORM VI - WITHDRAWAL FORM

SERIAL NO OF THE CASE: **OP / IP NO:**

NAME: **AGE/GENDER:**

DATE OF TRIAL COMMENCEMENT:

DATE OF WITHDRAWAL FROM TRIAL:

REASONS FOR WITHDRAWAL:

Long absence at reporting:	Yes/ No
Irregular treatment:	Yes/ No
Shift of locality:	Yes/No
Increase in severity of symptoms:	Yes/No
Development of severe adverse drug reactions:	Yes/No
Development of adverse event:	Yes/No

Date:

Station:

Signature of the Investigator: Signature of the Guides:

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FORM VII – PATIENT INFORMATION SHEET

Name of Co- Investigator: E.Nandhini.

Name of the college: Govt. Siddha Medical College

Arumbakkam

Chennai-106.

INFORMATION SHEET FOR PATIENTS PARTICIPATING IN THE OPEN CLINICAL TRIAL.

I, E.Nandhini studying M.D (Siddha) at Govt Siddha Medical College, Chennai, is doing a clinical trial on "THADIPPU PERUNOI (PSORIASIS)". It is becoming a most common disease, occurring throughout the world. In this regard, I am in need to ask you few questions. I will maintain confidentiality of your comments and data obtained. There will be no risk of disclosing your identity and no physical, psychological or professional risk is involved by taking part in this study. Taking part in this study is voluntary. No compensation will be paid to you for taking part in this study.

You can choose not to take part. You can choose not to answer a specific question. There is no specific benefit for you if you take part in the study. However, taking part in the study may be of benefit to the community, as it may help us to understand the problem of defaulters and potential solutions.

If you agree to be a participant in this study, you will be included in the study primarily by signing the consent form and then you will be given the internal medicine“MAHA MANJISHTATHI KASHAYAM” (Internal medicine) 30 ml bid for 48 days.

The information I am collecting in this study will remain between you and the Co-investigator (myself). I will ask you few questions through a questionnaire. I will not write your name on this form. I will use a code instead.

The questionnaire will take approximately 20 minutes of your time.

If you wish to find out more about this study before taking part, you can ask me all the questions you want or contact E.Nandhini , PG Scholar cum Co- investigator of this study, attached to Govt. Siddha Medical College, Chennai-106. You can also contact the Member-secretary of Ethics committee, Govt Siddha Medical College, Chennai.

Date:

Station:

Signature of the Investigator: Signature of the Guides:

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

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FORM VIII (DRUG COMPLIANCE FORM)

STUDYNO: OP/IP NO:

NAME: **AGE/GENDER:**

DRUG NAME: MAHA MANJISHTATHI KASHAYAM

Day	Date	Morning	Evening	Day	Date	Morning	Evening
Day 1				Day25			
Day2				Day26			
Day3				Day27			
Day4				Day28			
Day5				Day29			
Day6				Day30			
Day7				Day31			
Day8				Day32			
Day9				Day33			
Day10				Day34			
Day11				Day35			
Day12				Day36			
Day13				Day37			
Day14				Day38			
Day15				Day39			
Day16				Day40			

Day17				Day41			
Day18				Day42			
Day19				Day43			

Day20				Day44			
Day21				Day45			
Day22				Day46			
Day23				Day47			
Day24				Day48			

Date :

Station:

Signature of the Guide:

Signature of the Investigator:

GOVERNMENT SIDDHA MEDICAL COLLEGE

ARIGNAR ANNA GOVERNMENT HOSPITAL OF INDIAN MEDICINE

CHENNAI – 600 106

POST GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

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FORM VIII (DIETARY ADVICE)

சேர்க்க கூடிய உணவுகள்:

காய்கள்:

- முருங்கை பிஞ்சு,
- அவரை பிஞ்சு
- காரட்
- பிரண்டை,
- பீட்ரூட்

கீரைகள்:

- கரிசாலை,
- பொன்னாங்கண்ணி,
- மணத்தக்காளி,
- முருங்கைகீரை,
- பசலைகீரை,
- சிறுகீரை,
- கறிவேப்பிலை

பழங்கள்:

- மாதுளை,
- ஆப்பிள்,

- வாழை,
- பேரீச்சை,
- அத்தி,
- திராட்சை,
- கொய்யா,
- ஆரஞ்சு,

- எலுமிச்சை,
- நாவல்,
- தக்காளி

தானியங்கள்:

- கோதுமை,
- சோயாபீன்ஸ்,
- பட்டாணி,
- கொண்டைகடலை,
- பாதாம்

அசைவம்:

- வெள்ளாட்டு கறி,
- ஈரல்,
- எலும்பு மஜ்ஜை

சேர்க்க கூடாதவைகள்:

- மந்தப் பொருள்
- அகத்திக் கீரை
- புளிப்பு
- புகையிலை
- மது அருந்துதல்
- *கோழி கறி,*
- *நண்டு,*
- *கருவாடு,*
- *வேர்க்கடலை*